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Concern over UGC's research league table

by Robin McKie
Science correspondent

A list of universities, highlighting the best and worst centres for attracting scientific research grants, has been presented to the University Grants Committee. The confidential list, prepared by the Science and Engineering Research Council, reveals a range of successes with universities such as Essex, Keele and Salford at the bottom and others, such as Oxford, Cambridge and Manchester at the top.

The table, compiled at the request of the UGC, is part of the committee's plans for distributing the recent cuts on university spending imposed by the Government. About one third of Britain's 45 universities are to escape cuts, another third will suffer only minor reductions that will cause redundancies, while the last third can expect to be badly hit with large numbers of staff having to leave.

In selecting these three categories of universities, the UGC is considering a wide source of information which is being gathered and studied urgently at its fortnightly meetings. The table provided by the SERC provides one of the most significant inputs available to the committee.

The SERC list is based on the numbers and amounts of grants made by the council to individual universities and also give a breakdown of individual departments' abilities to attract funds.

The result shows that Essex, Salford, Keele, Dundee, Coleraine and Heriot-Watt come out at the very bottom of the research league; while a "second-bottom division", based on SERC

grants, consists of universities at Aston, Lancaster, Loughborough, Surrey, Aberystwyth, and London's Bedford College.

Among the top universities, it was found - rather unsurprisingly - that Oxford, Cambridge, Manchester, and London's Imperial College had done particularly well while others such as Southampton formed a strong "second division". In the middle of the table, a spread of universities with a general level of success in attracting SERC funds accounted for more than 50 per cent of the list.

The table has been submitted to the UGC, although there is some concern among SERC officials about how it might be used to assess the quality of departments or even be used as a basis or excuse for closing some down.

Several factors limit its usefulness as a guide to the quality of research carried out at universities. First, it gives no indication about the level of industrial money a department is able to attract, nor does it reveal that research in one area of a subject may be more expensive to fund than research in another area. Similarly, a rather poor department which has made repeated applications for money for a particular project may have eventually received its cash quite recently and will appear further up the list than it deserves.

However, given the general complexities and subjective problems in assessing the quality of work carried out at any department and the urgent task facing the UGC, it is probable the list will still form a significant part of the committee's considerations.

Czech asks for backing

by Paul Flather

British universities should formally sponsor underground courses in Czechoslovakia increasing pressure on the authorities to allow greater academic freedom, a leading Czech academic has urged.

Dr Jan Tesar, a historian, who played an important role in the development of the unofficial Patocka University in Czechoslovakia has called on universities to take a more active role in backing dissidents in Eastern Europe.

His appeal coincides with signs of increasing repression in Czechoslovakia. Last week about 30 supporters of Charter 77 were arrested in a series of dawn swoops in Prague. About ten, including academics and journalists, are expected to be charged with "subversion of the republic".

Dr Tesar wants universities to adopt particular - unofficial courses and, through sources in London, offer books, papers, cassettes, bibliographies, lecture notes, and if requested, send lecturers on informal visits.

Not all courses would welcome such "demonstrative support", Dr Tesar said through an interpreter. "Some courses may regard it as provocative. But in other cases it would force the authorities to choose between closing down courses or endangering important links with European universities."

Dr Tesar made his appeal during a visit to London from West Germany where he lives in exile, deprived of Czech citizenship. He has spent six of the last 10 years in Czech prisons charged with "subversion". He has had work published in samizdat - underground publications.

Sources in London said the recent arrests were part of a campaign to break up the independent publishing houses which have grown since the birth of the Charter.

V-Cs look at redundancy pay-offs

by Ngaio Crequer

Vice chancellors are considering the feasibility of a Crombie-style compensation scheme for academics made compulsorily redundant.

The general purposes committee of the Committee of Vice Chancellors and Principals has agreed to examine the Crombie Code, variations of it and other public sector schemes to prepare for possible mass enforced redundancies.

Officers will cost the different schemes and these will be discussed by their main committee later this month. They have told the Association of University Teachers that they are looking into the consequences of the cuts and will be in contact again after their full meeting.

The Crombie Code, which was taken from schemes drawn up for civil servants and local government, was adapted to compensate redundant teachers during the run-down of

teacher training in the mid-1970s. Its complicated and vague drafting led to over 100 references to industrial tribunals and enabled teacher unions to drive a legal coach and horses through the regulations. This so widened its scope that many of the awards were unexpectedly generous.

The feeling among vice chancellors is that they could not support any scheme which is not at least as favourable as Crombie. They want to avoid complications thrown up by bad drafting and any scheme which allowed payments to be withdrawn if lecturers circumstances changed.

The Crombie Code was in three parts. The first allowed resettlement compensation, for which there was a qualifying period of three years, including public sector employment. The award was two-thirds of emoluments at the date of loss of job, reduced by social security benefits, redundancy payments and alternative employment, for 13 weeks.

Secondly, the long-term compensation, qualifying period eight years, was based on a scale of payment depending on numbers of years of service after the age of 40. Thirdly, retirement compensation included an enhancement of pensionable years for people over the age of 40.

Officially Crombie is dead. Earlier this year the Government made it clear to the Trades Union Congress that the Crombie scheme would not be used again.

But it cannot be ruled out that a variation of the scheme might be resurrected, if all parties agreed, to provide a rational plan for compensating the 3,000 academics the University Grants Committee says will be dismissed if university cuts are imposed.

Dr Rhodes Boyson, minister responsible for higher education, said this week: "Obviously we will consider any scheme vice-chancellors put to us, without commitment."

Mitterrand promises policy reversal

from Anne Corbett

PARIS
The election of Francois Mitterrand to the French presidency has delighted the university teachers union. "Hope has taken over from despair," said the leader of the federation of teachers unions, the FEN.

In line with a general philosophy of "abolishing privilege and releasing the energies of the French people" by decentralising decision-making, Mitterrand's manifesto commitments to the universities amount to a reversal of Giscardian policy.

The manifesto implies an end to the policy which was being put into operation of splitting universities between centres of excellence to meet the needs of the economy and "parking lots" providing a general post-baccalaureate education. It also rejects an approach which was concentrating university policy ever more tightly in ministerial hands.

Specifically, Mitterrand has said that he would repeal the controversial Loi Sauvage giving control of university governing councils back to the professors. He is ready to annul the national recruitment list for the junior *maîtres assistants*, to remove barriers which now make it difficult for foreign students to attend French universities, and to allow a review of the second and third cycle courses (third and fourth year undergraduate studies and post-graduate courses) which were suppressed last summer by Giscard's minister for the universities Mme Alice Saunier-Seïté.

But the precise policy to be adopted will depend on the outcome of negotiations with the unions as well as the results of the legislative elections planned for June 21 and 28.

The THES

Changes in the style and organization of *The THES* are introduced this week. The most obvious of these is a new, and we hope tidier, title page. A new and more detailed list of contents appears on the back page (in the same position as in *Le Monde*), with the leaders and Laurie Taylor's column.



Part-time Open University tutor and curate Dr Mike Morgan hopes to raise more than £70,000 for the OU's disabled students in a 1500-mile sponsored cycling marathon.

Dr Morgan, who is also head of maths and science at Highbury College of Technology in Portsmouth, intends to visit all 42 Anglican cathedrals on his 20 day journey.

"If every OU student simply sent me £1 the disabled students would benefit by £70,000," he said. "I would like to think that they would."

OU students are being asked to provide overnight accommodation for Dr Morgan and his back-up driver, who hope to cover 80 miles a day, starting Truro and finishing in Oxford.

Lecturers challenge closures

by David Jobbins

Signs of bitter conflict with the University Grants Committee emerged this week as the university lecturers' union held its most crucial council ever.

After a blistering attack on the Government's approach to university spending, the president of the Association of University Teachers, Mrs Liz Ann Bawden, challenged Dr Edward Parkes, the UGC's chairman, on the committee's right to decide which institutions should lose their research role and be downgraded, and which faculties and departments should close.

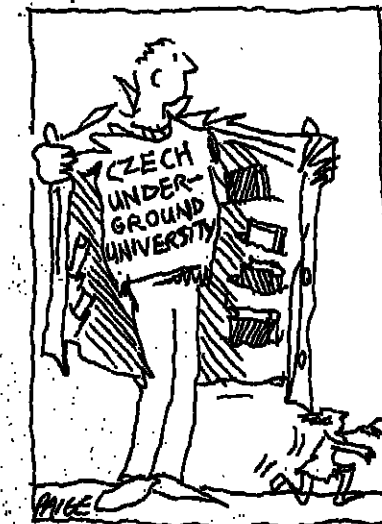
Disclosing that Dr Parkes had not been able to accept an invitation to

address this week's council meeting in Cardiff, she said: "I should like to pass on to him succinctly the message I am confident you would have made clear to him had he been here."

"The UGC is in no position to judge which courses in different universities are of greater, or lesser value. They simply do not have the knowledge. As a matter of principle, such judgments should be made on academic grounds only. Only the universities themselves can decide - as they always have done - which areas of academic growth are withering, and which are flourishing and should be encouraged."

"The AUT is resolutely opposed to

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RCA students call for sale of Hockneys

by Paul Flather

The Royal College of Art is being urged to sell sculptures and paintings including two Hockneys to raise funds for extra student bursaries. Students have called on the rector to set up a £100,000 trust fund to make up the 27 bursaries cut by the Government from next year's student intake. The college was allocated 140 bursaries.

The student union also wants the RCA to move under the umbrella of the University Grants Committee, ending its direct funding link with the Department of Education and Science.

Considerable controversy has been aroused in recent months by letters from the DES to the college revealing the Government's intention to withhold funds because the RCA did not appear to be fulfilling its charter obligations to British industry.

The letters were sent after a highly critical report from a DES visiting team. The students are angry about what they say is unjustified interference in college affairs and the undermining of college autonomy.

Mr Paul Convery, students union president, said: "We feel it is absolutely wrong that a minister can threaten to cut off our funds just because of a report by a visiting team. Such steps would be unthinkable under the UGC."

"The college has now got to get out and raise money by lobbying organisations, companies, former students and restore the bursaries we have lost. Much of our collection is never seen anyway."

Open Tech blueprint unveiled by MSC

by Charlotte Barry

The blueprint for an Open Tech was finally unveiled this week by the Government. Proposals for the £10m a year technical training and retraining project are set out in a consultative document published by the Manpower Services Commission.

The Open Tech programme is intended to extend the aims of the Open University but will differ radically in relying solely on the cooperation and support of existing providers of technical education and training.

The document stresses: "It would achieve its impact largely through the support and encouragement it would give to the collaboration of many educational, industrial and other interests—not through the establishing of any separate education or training institution."

The publication is a long-held ambition of Employment Secretary Mr Jim Prior, who has signed the foreword along with Education Secretary Mr Mark Carlisle. Comments on the proposals are required by mid-September and a limited number of courses should be launched early next year.

People without formal qualifications will have the opportunity to study where and when they wish, using a variety of written and broadcast materials as well as face-to-face teaching. No legislation will be involved in setting up the network of 15-20 major projects costing the MSC £6-£10m a year over the first five years. This will be co-ordinated by an Open Tech Unit which will work closely with technical colleges, professional, examining and validating bodies, employers and the trade unions.

Open Tech agencies and information centres will work at a local level to deal with curriculum and course development work and also publicity.

The paper says that the Open Tech will be aimed at people who need training or retraining at work or who want to change or develop their career by studying in their spare time and the unemployed or married women wanting to re-enter the labour market.

Young people without qualifications and women wishing to enter traditionally male dominated areas of work will be especially encouraged. There is also a possibility that the Open Tech will provide bridging or learn to study programmes.

The document is vague about details of design, precise cost and the potential number of students involved. It suggests that costs could partly be recouped by fee charges, and it is understood that unemployed people will not have to pay for retraining.

The paper is available from Stephen Ennis, Manpower Services Commission, Training Services Division, 162, 165 Regent Street, London W1R 6DE.

Medical federation seeks to save specialist institutes

Attempts to ensure special protection for London's smaller, threatened postgraduate medical institutes are now being made by their controlling federation.

Many of the 13 institutes, run by the British Postgraduate Medical Federation, could be merged with some of London's projected conglomerate medical schools because they can no longer afford to remain independent.

The problem stems from the Government's overseas student fees policy which threatens to cut almost £4m from the city's postgraduate medical education bill.

In particular, the Institutes of neurology, dental surgery, laryngology and otology, obstetrics and gynaecology, dermatology and orthopaedics are considered to be especially vulnerable.

As a result, it is expected they could be moved from their present sites and incorporated within some of the six up in London along the lines first proposed in the Flowers report and recently agreed by London University Senate.

However, it is feared that the specialist services offered by the institutes could be lost completely in future if further cuts have to be made at the new schools. To prevent this the federation is now pressing London University to ensure that any new funding of institutes will incorporate special protection measures.

Microchips 'will force universities to change'



Britain stands on the threshold of a third industrial revolution, which will involve changes from which the universities cannot stand aloof, Lord Todd, past president of the Royal Society said this week.

Making the centenary lecture at Liverpool University, he said microprocessors, computers and molecular biology were the harbingers of the revolution.

He said the idea would have to be abandoned "... that all the universities now have should conform to the traditional pattern of the civic universities such as Liverpool, and that all should expect to pursue both teaching and research at the same level and on the same scale."

"A hierarchy of universities will indeed develop in which some will be concentrated on teaching other than research while our established civic universities such as Liverpool shall be given the freedom and the money to develop further along the lines which have carried them successfully through the first century of their existence."

He also said that by and large the newer universities had modelled themselves too closely on older institutions and taken some students more suited to vocational higher education.

Some of the polytechnics, too, had failed to fulfil expectations but striven to become indistinguishable from universities.



Two scenes from Liverpool University's first century. Left, Oliver Lodge, professor of experimental physics at Liverpool in the 1890s, sitting by the "ether machine" which he devised to test the properties of the substance. It was paid for by George Holt, seen here lining the machine's revolutions. In the middle is Lodge's "Invaluable assistant", Benjamin Davies.

Manual staff call for unity

University manual workers this week accused the government of "savagely attacks" on the institutions in which they work and called on other unions to join in "intense and unified resistance" to its policies.

The universities' section of the National Union of Public Employees unanimously passed a resolution at its conference in Bournemouth stating that government policy had already begun to undermine the efficiency, safety and fairness of the universities, and of the "useful members of society" working in them.

Aberdeen University representative Mr Tom Begg said no part of the public sector had been hit so hard. University entrance was likely to become even more of a class privilege just when it ought to be broken open to many more people.

"The Labour Government was trying to get universities to bend their rigid structures to deal with a changing society where many more mature students would come in after experience of life and work. All that has gone and with it the chance to make the universities more democratic, more socially representative and more responsible."

"With the cutbacks they are likely to become more conservative, rigid, inward-looking and their intake restricted to the people who have traditionally taken it for granted."

No other country except perhaps President Reagan's America behaved that way.

"The danger of the present situation is that each person and each university group will be so anxious to protect themselves that they will gladly join in reducing someone else. We will play into Mrs Thatcher's hands if we fight amongst ourselves. Her hand is against universities as a whole and she is a menace to anyone who works in one, studies in one or hopes that one of their children may benefit from one."

Earlier the full conference had called for a full-scale TUC inquiry into ways of restructuring higher education to fulfil the needs and aspirations of the working class. Delegates were told that in the 1970s only 20 per cent of students were children of manual workers, a group which comprised 60 per cent of the population.

NUPE came down firmly against student loans and the chairperson of the universities section Mrs E. Castle pointed to difficulties which would arise following the government's decision to hold student grant increases to 7 per cent.

"This will lead us into further problems when students find they are unable to afford increased charges for halls of residence, catering services etcetera. These problems will severely test the relationship between NUPE and the National Union of Students."

NUPE, which recognises it is threatened with up to 4,000 redundancies in 1981/82 called for TUC help in speeding up the process in making the universities more accountable. It wants to trade union involvement both on the University Grants Committee and governing bodies.

Oxford chef claims he was victimised

A leading member of the National Union of Public Employees at the Oxford college which had its first strike last year in its 360-year history failed to get a more senior job at another college because of his union activities, it was claimed this week.

Mr Bill Graybanks, currently earning £85 a week at Pembroke College, said the first question he was asked when he applied for a job as head chef at the other college was: "Do you belong to NUPE?"

"When I said yes the questioning became very violent. I did not get the job," he told the union's university sections conference at Bournemouth.

Mr Graybanks and NUPE regional officer Mr Alf Collier said there had been major improvements at Pembroke since the settlement of last year's two-week strike.

NUPE had been recognized at the college, and the 45 manual staff had secured a pay deal slightly better than the national agreement.

An 84-year-old kitchen hand paid 70p an hour who worked until his hands bled, had been moved from the kitchen, Mr Graybanks said.

A trainee chef working a 72-hour week with no overtime payment and earning £22.50 before stoppages had her pay almost doubled.

But Mr Collier said: "The difficulty one has to overcome is the servile attitude of ancillary staff who accept they are servants. Some of them are proud of being servants to the future rulers, the future capitalists, of this country."

"They are still touching their hats when students pass them. We must attempt to change that," he said.

Mr Collier claimed that NUPE was still successfully recruiting at Oxford's 40 autonomous colleges.

Scots union urges equal grants cuts

by Olga Wojtas
Scottish correspondent

Branches of the Scottish Association of University Teachers have written to all Scottish principals and MPs pressing for an even distribution of next year's cut in grants by the University Grants Committee.

Scotland might suffer badly in any differential distribution of cuts, says the AUT(S), because it is further from where the decisions are made and because its system of a four year honours degree is different from the rest of the United Kingdom.

The AUT(S) says it is not indulging in special pleading for Scottish universities as the UGC plans for differential distribution would be disastrous wherever they were implemented.

The UGC proposals would mean some universities being cut so severely that in October departments and even faculties would have to close, with thousands of students having their studies terminated in mid course, and their teaching staff made redundant, says the AUT(S).

"Transfer of students between universities would be extremely difficult without extending the period of study, because of differing course structures, and would severely reduce the students' chance of successfully completing their degrees: in most cases there would not be places available in other universities to which they could be transferred."

"It seems that little, if any, thought has been given to the fate of students caught in this way," says the letter.

Redundancies and the chaos of im-

mediate closure of courses would reduce morale to a level from which it would take a decade to recover. This would not be confined to universities suffering the heaviest cuts, as staff in all universities would know their jobs had become dependent on the whim of UGC policy.

The union emphasises that it is not opposed to change within the universities, or the closure or merger of departments, but insists that the UGC's "radical proposals" must be subject to full consultation with the universities, with the trade unions involved and with relevant bodies outside the university.

If cuts were distributed evenly, says the AUT(S), universities would be able to cope with freezing posts and by massive cuts of non-pay items such as laboratory equipment, library books and repairs to buildings.

"The quality of university teaching and research would suffer severely, but the damage would not be irreparable as it would be if the grants were distributed unevenly."

There is no justification for withdrawing funds from universities in terms of applications for places and demand for graduates, says the AUT(S). The Government must be persuaded in the long term to reverse its decision on cuts in higher education.

"But we see the division of the 1981-82 grant as the immediate and critical issue. If the cuts are applied unevenly, the university system will be set on a course which will cause damage that will take decades to repair, and which will reduce the country's capacity for economic recovery."

Labour gains control of five polys

Five polytechnics were under new political control this week while two others waited to hear their fate following the county council elections. But the greatest interest was created by an authority which remained under Labour.

An irregular swing to the left allowed Labour to capture Avon (with Bristol Polytechnic), Cleveland (Teeside), Lancashire (Preston), Nottinghamshire (Trent) and Staffordshire (North Staffordshire). The Conservatives also lost overall control of Leicestershire (Leicester Polytechnic) and Warwickshire (Coventry).

A number of colleges and institutes of higher education are also waiting to see the result in changes of county council administrations, including Hull College, Matlock College and Charlotte Mason College.

It was the replacement of Sir Ashley Bramall, however, as leader of the Inner London Education Authority which captured the headlines. Mr Bryn Davies, a Trades Union Congress official, took over the leadership in a move which will take ILEA further to the left.

Little change is anticipated in the authority's higher education policy, although Mr Davies would make no comment this week. Committee chairmen were being selected today.

The county council results will see no change in control of the Association of County Councils, although some Tory members of the education committee will lose their seats.

In several counties a change of control is expected to signal a resurgence in the adult education service. In Humberside, Cumbria and Nottinghamshire particularly the service had been hard hit under the Conservatives.

Although the swing to Labour will not necessarily mean more generous treatment for the polytechnics and colleges concerned, in Avon the new education chairman, Dr Robert Glen-dinning, has promised to remove the threat of staff losses. The National Association of Teachers in Further and Higher Education will press the new administration to replace lecturers taking early retirement at Bristol Polytechnic, as part of a scheme designed to save £1.1m this year.

Posner criticises SSRC compromise

Critics of radical plans to reorganise the Social Science Research Council's committee structure have put forward a compromise. The new option devised by senior academics was being discussed at today's meeting of the council's research board.

This development follows a meeting of the 15 subject committee chairmen last month where deep concern was expressed at proposals to abolish or merge at least half the committees.

The chairman also attacked Mr Michael Posner, the SSRC's chairman, for failing to consult them early enough about the three options.

These are: six new committees each covering broad areas of study; a modified structure involving abolition and amalgamation of smaller committees; four administrative groups each containing two committees.

The so-called "rational option" has been introduced by Professor Michael Drake, chairman of the economic and social history committee, and Professor Harvey Goldstein, chairman of the statistics committee. Both are vigorous opponents of the reforms which threaten to abolish their committees.

The new option would involve three broad subject groupings containing education and development; management, industry and employment; environment, planning and housing. It would also include ten separate subject-based committees.

Their discussion paper stresses: "The maintenance of research quality seems to us to be the most important of connected with the SSRC, it is our view that the structure we are proposing comes closer to achieving this than any other of the options so far proposed."

In spite of the widespread opposition to radical reform it is now clear that Mr Posner intends to press ahead. The committee has already voiced their strong opposition to a system of individual committee budgets. In addition there is the view, led by postgraduate training board chairman Sir James Dunnnett, that the committees should reflect the fact that postgraduate training in the universities is organised along disciplinary lines.

Two London colleges in merger talks

by Ngao Crequer

Secret talks have been held to discuss a technical merger of London's Westfield and Bedford colleges by appointing a joint principal.

Dr John Black, the principal of Bedford College, retires in September, 1982, or sooner if a replacement is found. One idea being canvassed within London is that Dr Bryan Thwaites, principal of Westfield should head both colleges.

It is understood that the proposition has been put to the committee seeking Dr Black's successor, Dr Professor Randolph Quirk, who takes over as vice-chancellor of London University in September, and Sir Peter Swinerton-Dyer, who is chairing the committee preparing rationalisation plans for London. So far all the conversations have been informal and no official proposition exists.

The colleges are both former women's colleges and together have

about 3,000 students. The proposal would mean that initially the schools would retain their separate identities but more formal links would emerge in time.

It is likely, however, that Bedford would resist the move because it would want to maintain its independence. Dr Thwaites declined to comment. Dr Black said: "I am having nothing to do with the appointment of my successor and no suggestion of this has been discussed with me."



Whitlands College's May Queen, Heather Forbes, is the latest in a tradition stretching back 100 years to the occasion when John Ruskin refused to establish a prize for the college, now part of the Roehampton Institute.

Instead he suggested the whole student body should elect a May Queen—the "likeablest and lovablest" of all the junior students. This year's ceremony when Heather was invested with a gold cross at a service conducted by the Bishop of Reading, the Right Reverend Eric Wild, was attended by 40 previous May Queens.

Voluntary colleges worried by teacher training proposals

Fears for the future of some voluntary colleges have been reawakened by a passage in the Department of Education and Science's recommendations for the future shape of the teacher training system.

In a paper rejected by the Advisory Committee on the Supply and Education of Teachers, the DES raised the possibility of "proposing a nil target" for teacher education places while talks took place on the continuation of BED and Postgraduate Certificate in Education courses at a particular college.

The withdrawal of teacher training from any of the 24 voluntary colleges would mean almost certain closure, although most have some diversified courses. BED and PGCE courses form the backbone of student recruitment in all the colleges.

Despite the rejection of the DES strategy, which was based on a contraction of PGCE numbers in the short term followed by a reversal of the policy in later years, ACSET would have no power to prevent action by the Government.

Representatives of the colleges were puzzled by the paragraph which referred first to institutions which might opt to withdraw from teacher training. It concluded: "The department itself might wish to propose discussions on the future of a particular college's involvement in teacher training (and where it might be appropriate to propose a nil target pending the outcome of such discussions)."

The Association of Voluntary Colleges, which met last week to discuss the ACSET deliberations, is to raise the matter with DES officials. Mr Colin Alves, the association's secretary, said that he believed the passage to be the result of bad drafting rather than any sinister motives.

Concern has also been expressed by members of the college principals' body, the Standing Conference, which is preparing its own response for ACSET, which will resume its examination of the system at the end of this month in the hope of reaching conclusions by July.

Science institute investigated

An urgent inquiry has been launched to probe the finances of the Rutherford Laboratory, the Science and Engineering Research Council's principal institute. The inquiry, which is being chaired by Dr Paul Williams, head of the SERC's astronomy, space and radio division, is expected to be completed in the next two or three weeks.

The decision to launch the investigation follows recent Treasury criticism of the SERC in the wake of its severe overspending of funds in 1979-80.

Many of these difficulties stemmed from problems with the council's science board which is responsible for funding much of the activity at Rutherford, which last year cost £42.5m to run.

Last year the laboratory was under-spent by £200,000, although the entire SERC budget is only allowed an annual variation of £300,000 and the money would have been useful in offsetting severe economic restrictions imposed on other council activities.

Council leaders press plan for national body

by John O'Leary
Local authority leaders are to meet Mr Mark Carlisle, Secretary of State for Education, before the end of the month to discuss their own plan for a national body for colleges and polytechnics.

A detailed version of their scheme, which would be similar to that proposed in the Oakes report, leaving responsibility for public sector higher education with the local authorities, has now been completed. The meeting, at the Department of Education and Science, will take place on May 21.

Mr Gordon Cunningham, education officer of the Association of County Councils, claimed this week that the Council of Local Education Authorities' scheme could be in operation much more quickly than the Government's alternative and would be just as effective. It could be fully operational by 1983-4, he said, whereas Mr Carlisle was unlikely to meet this timetable.

The DES is expected to bring out a Green Paper, setting out its recommendations for a national body, before Parliament's summer recess. Legislation could be included in the Government's planned Further Education Bill, which could be ready early next year.

If so, it will leave the local authorities in a quandary since they are anxious to see the contents of the Further Education Legal Basis Report, which will be published next month, enacted. Although they are reticent about proposals to oblige them to provide further education for those over 18, they believe it to be urgent that clarification of the legal position is obtained before there is a clash in the courts.

Lecturers challenge closures

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the concept of selective cuts imposed by the UGC and we are calling on our members throughout the universities to resist such a dangerous course."

On the cuts announced in the March White Paper on public spending, the AUT calculated that when the effect of the Government's "crass" overseas student fees policy was included, the real order of the cuts faced by the universities was 13 to 15 per cent, with London as high as 18 per cent.

"What is frightening is that any government should so blindly adopt policies which threaten the quality and extent of the higher education system that the nation has so proudly developed over the past 40 years."

Unless the policies were changed qualified students could be unable to find university places. "If this is to happen it is right they and their parents should know that the responsibility lies

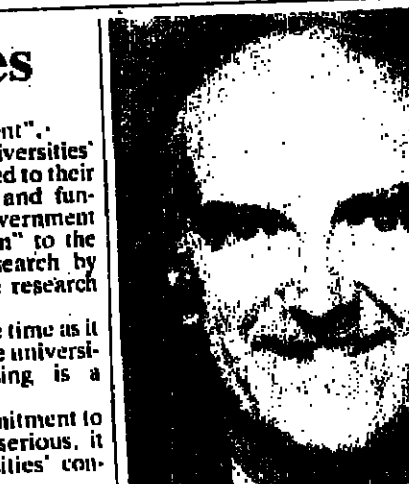
squarely with the Government."

After emphasising the universities' wealth-creating role she turned to their commitment to scholarship and fundamental research. The Government had given "token recognition" to the importance of scientific research by maintaining the level of the research council's grants, she said.

"But to do that at the same time as it is deliberately debilitating the university half of the dual-funding is a mockery."

If the Government's commitment to fundamental research was serious, it should support the universities' contribution.

While returns on the nation's investment in literature, the classics, and fine art could not be quantified in money terms "they contribute to a quality of life which we are determined shall be maintained and extended to every member of the community."



The new president of the Workers Educational Association is Professor Bernard Jennings, professor of adult education at Hull University. An ex-WEA tutor, he succeeds Mr Bill Hughes, former principal of Ruskin College, Oxford.

Boyson hints at research axe

by John O'Leary

The possibility of some universities losing their research function and devoting themselves solely to teaching was raised publicly by a Government minister for the first time this week. Dr Rhodes Boyson, under-secretary for higher education, told a meeting of young Conservatives in London that there was an urgent need for higher education to accept its part in reducing Government expenditure. Institutions had to realize that the period of continued expansion was over and decide their priorities in maintaining excellence and providing the skills needed by the country. "Initial reductions in higher education expenditure must come from two sources: a reduction in the student/teacher ratio and the rationalization of courses being offered," said Dr Boyson, adding that universities and polytechnics in the same areas were competing for students. This was expensive in terms of both staff and costly facilities.

Britain's ratios of one member of staff to every 9.3 university students and one per 8.5 students in polytechnics were among the lowest in the world, he said. The United States, France and Italy all had much higher ratios, but British institutions were staffed as if each lecturer was and should be engaged on vital research for a considerable part of the time.

"Do we need six, eight or 10 times the research of 1939 and has the expansion of numbers not inevitably lowered the average quality?" Dr Boyson asked. "Should some institutions be simply teaching institutions with higher staff/student ratios?"

The Government had planned for a cut of 3½ per cent in spending on higher education, rising to 8½ per cent over three years. But there would be a dramatic drop in the number of 18-

year-olds in the next decade and there had already been a "voluntary" reduction in the numbers entering higher education when places were available.

Problems for the sector stemmed from the fact that since 1945 it had been presumed that numbers would continue to expand at a cost per student which is among the highest in the world, said Dr Boyson. Questions had been raised since 1969 about the ability of the present system to continue without alteration and now the need for economies and decline in the number of school leavers had brought the issue of funding to a head.

At present, there was no overall course control, he said. The University Grants Committee was concerned to rationalize courses, but there was a need for a national body to perform a similar task in the public sector and to co-ordinate action with the UGC.

Eight unions join forces to fight forced closures

The eight leading trade unions representing 110,000 university workers are pledged to fight faculty or departmental closures imposed by the University Grants Committee.

They have warned they will seek to throw a spanner into the UGC's administrative machinery by arguing with it against each and every threatened closure.

In a joint letter of protest at the idea of selective cuts, the unions tell UGC chairman Dr Edward Parkes: "Such a policy will allow no realistic consultation between organizations representing the staff and the university or college as an employing institution, since such discussions will have been pre-empted by the UGC decision."

Such action would be divisive and could lead to compulsory redundancies "without universities even pretending to be able to carry out their obligations under... the Employment Protection Act."

The initiative for this unprecedented joint action among campus unions came from the Association of University Teachers. The others are: the National Union of Public Em-

ployees; the Transport and General Workers' Union; the Association of Scientific, Technical and Managerial Staffs; the National and Local Government Officers' Association; the General and Municipal Workers' Union; the Union of Allied Trade Technicians; and the Confederation of Shipbuilding and Engineering Workers.

Their joint letter, drafted by full time officials representing 110,000 university workers, calls on the UGC to change tack. Failure to do so "must lead to a demand from us for consultations on each specific proposal before it is promulgated and imposed on individual institutions."

The unions argue that there must be consultations with the UGC because individual institutions, although they are legally the employers, will simply cite the UGC's instructions as a reason for redundancy.

"Therefore we have to discuss it with the people who have to take the decision," Mr John Akker, deputy general secretary of the AUT, said. The UGC was expected to consider its response to the initiative at its meeting late this week.

Pensioners' university proposed

by Charlotte Barry

The creation of Britain's first university for the elderly is being planned by senior social scientists and doctors in Cambridge.

The initiative comes from Dr Peter Laslett, a fellow of Trinity College, Cambridge who is also founder and co-director of the Social Science Research Council's Cambridge group for the history of population and social structure.

His proposal to set up a University for the Third Age in Cambridge, is mirrored on the well-established movement of *Universités de Troisième Age* in France and other French-speaking countries such as Belgium, Canada, Switzerland and parts of Africa.

A public meeting in August will discuss the feasibility of setting up a similar project based at Cambridge University.

Dr Laslett said this week that he envisaged the venture being run on the same lines as the *Université de Troisième Age* in Toulouse which is based on the main university campus. An entirely autonomous organization, its programme of courses in arts, sciences and social studies are run by the elderly using the teaching services of university staff.

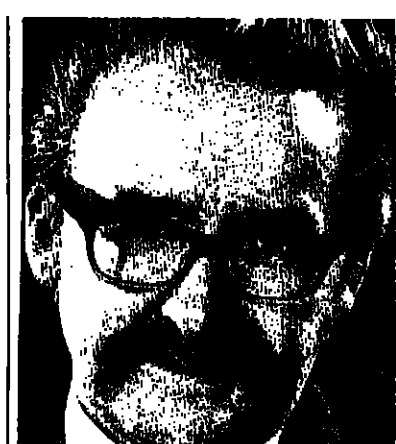
Speaking after a seminar on access to universities for the elderly organized by the Nuffield Foundation's centre for policy on ageing, Dr Laslett criticized Britain for lagging behind other countries in providing education for the over 60s.

"The major reason for this is that the university system is extremely unsympathetic to this sort of thing," he said. "We are only going to change the position in Britain by doing something dramatic in the same way that we only managed to get university education available to well-motivated adults was through the Open University."

The problem of providing education for the fast-growing elderly population is a question being debated in earnest by adult educators who have long been criticized for ignoring the issue.

At the Nuffield seminar university representatives discussed the possibility of encouraging more elderly people onto degree courses and the introduction of special "gateway" courses for those without formal qualifications. They agreed that more universities should allow members of the public to attend lectures and there should be an extension of the "Elderstudy" short courses scheme.

But Professor Harold Wilshire, Emeritus professor of adult education at Nottingham University said: "That approach seems much more likely to get off the ground than trying to squeeze a few elderly students into the shrinking, impoverished universities."



Quirk accepts London post

by Ngaio Crequer

Professor Randolph Quirk's agreement to become the next vice-chancellor of London University will presage a period of calm—at least for the next few weeks.

Professor Quirk (above) aged 60, the Quaker professor of English Literature and language at University College, takes up the post on September 1. He succeeds Lord Annan who was provost of University College before he became vice-chancellor in 1978. Professor Quirk will serve for four years, then possibly another four.

He has resigned from Sir Peter Swinnerton-Dyer's committee which was set up to produce a report on plans for non-medical education at London. He has been active on that committee and was one of those who resisted what appeared to be interference by Lord Annan when he suggested they speed up their work.

The Swinnerton-Dyer committee has completed its interviews with multi-faculty heads and is expected to produce a number of reports detailing the changes London must make to cope with the spending cuts and decline in overseas students. These are bound to be controversial and Professor Quirk will have both the benefits and disadvantages of having been on the inside from the beginning.

There will soon also be other changes in the leadership at London. The principal, Mr J. R. Stewart retires in September 1982.

The only surprising thing about Professor Quirk's nomination was that it took the appointing committee, led by Lord Scarman, so long to make it. The committee was beset with rumours that it wanted an outside appointment, that it could not agree and would delay making a move.

The nomination is universally popular. Professor Quirk is an international scholar, respected for his study of the English language, and admired for his skill in popularizing his subject. He has been on the councils of Queen Elizabeth, Westfield and Chelsea colleges, and chaired academic council from 1972-75.

Aid agencies slam NHS fees anomaly

by John O'Leary

Government proposals for charging overseas students and visitors for the use of National Health Service facilities have brought immediate protests from aid agencies and nursing bodies.

They are complaining that a consultative letter sent to interested parties by Mr Patrick Jenkin, Secretary of State for Social Services, is "riddled with anomalies" and already breaks promises made in preliminary discussions. In particular, they are angry that nursing students will not be automatically exempted from any new system.

But opponents of the proposed measures are now optimistic that administrative difficulties may force the Government to delay any changes and eventually settle for the status quo.

A meeting of the various unions and pressure groups campaigning against the introduction of new arrangements agreed a strongly-worded statement accusing the Government of endangering race relations and the health of the community. It called for the proposals to be withdrawn and for the Department of Health and Social Security to give an assurance that any new regulations will not involve students already in the country.

Mr Rupert Bristow, executive secretary of the United Kingdom Council for Overseas Student Affairs, said later that the groups felt that the Government had broken a commitment given by Dr Gerard Vaughan, Minister for Health, in including nursing students among those to be charged. Only when they were on hospital duty would they be exempted.

"We were given a specific assurance on nursing students," said Mr Bristow. "The nursing bodies are particularly mad about it. But the whole letter is riddled with anomalies and we are hopeful that new points and administrative difficulties could throw the whole thing back into the melting pot."

At present, the Government intends to receive comments on its proposals this month in order to table regulations in the House of Commons before the end of the Parliamentary session. They would come into force in October.

Mr Jenkin's letter devoted only a short section to the position of overseas students, confirming that they would be treated in the same way as foreign visitors, qualifying for free hospital treatment only after three years' residence in Britain unless their home countries had reciprocal agreements for the use of medical facilities.

Further talks are to be held on the position of students already on courses, whom the Government seems likely to exempt. UKCOSA and others have argued that those arriving this year should be treated similarly since they had no knowledge of the proposed changes.

Mr Alan Beith, the Liberal spokesman on education, has tabled an Early Day Motion in the Commons, urging the Government not to proceed with its plan. There was no evidence that overseas students were abusing their right to free access to medical services, he said, and the proposals would strengthen the impression that Britain did not want foreign students.

Protest at treatment of polys

Many local education authorities are treating their polytechnics worse than the rest of the further education service, according to the Association of Polytechnic Teachers.

"The newer institutes of higher education have generally had more favourable treatment...," says APT's national secretary, Dr Tony Piont, "FE colleges have done even better."

Polytechnics had also suffered a decline in expenditure four per cent greater than the universities over the past three to four years, he added.

"Squeezed between the universities, local education authorities and the further education colleges, polytechnics and polytechnic students are the Cinderellas of the education system."

"The cuts have ruled out completely any catching up in standards with the universities. Research activities have in many cases stopped. Aid to industry through relevant and cost-effective programmes of consultancy has ceased."

Funding and staffing cuts were stifling the very areas in which the polytechnics did most to enrich the nation's skills-bank. Government and local authorities should embark on a planning programme to give the polytechnics even-handed treatment at least to protect the courses both claim to be vital to national recovery.

Dutch telescope deal postponed

The signing of a joint UK-Dutch deal to share out time on the Science and Engineering Research Council's observatory complex in the Canary Islands has been cancelled. The agreement, which will allow Dutch scientists to take a 20 per cent share in the project, was to have been signed this week.

Administrative delays at the Zuiver Wetenschappelijk Onderzoek, the equivalent of the British SERC, has meant that its central board has been unable to ratify the deal, which cost the council almost £2m in construction costs for the William Herschel telescope at La Palma alone.

A date is expected to be fixed in June for the signing ceremony, which will be attended by SERC chairman Sir Geoffrey Allen.

Which degree

Which Degree 1981 is now published and contains a comprehensive guide to first degree courses at universities, polytechnics and colleges. In three volumes: arts business and social studies, price £12.50; science, engineering and technology, £12.50; and universities, polytechnics and colleges, £5. A full set, in a slip cover, can be bought for £25.

The first two volumes describe the courses offered. It is published by VNU Business Publications, 53-55 Rith St, London W1.

Students burn the midnight oil to stop cuts

by Paul Flather

9.15 pm and the iron gates outside an entrance to South Bank Polytechnic swing shut. Minutes later a dozen students walk quietly into the library armed with books and sleeping bags to begin an all night protest against education cuts.

About 40 people have been locked in for the night. Twenty-five students (0.6 per cent of the student population) are staging an official work-in, the new 1981's style of responsible and useful protest favoured by the National Union of Students which prompted about 20 colleges and polytechnics to adopt the same work-in tactic last week.

A full complement of library staff have volunteered to be on hand to see normal working conditions apply. Mr Denis Hawes, chief librarian for ten years, is there to protect his baby, a new £100,000 Genc data unit, just nine-months-old and the second to be installed in Britain. It tells you everything except the name and address of book borrowers.

Even the polytechnic secretary, Mr Ian Outtrim is there to make sure the students work. "That's why they arranged this stunt, isn't it," he says. Later he is to tell two students off for playing pool in an anteroom instead of reading. Two posters settle down for a night of Capital Radio.

The work-in had been advertised widely, a student meeting voted 60-0 in favour of the sit-in and revise protest, posters adorned the walls, thousands of leaflets went out.

Mr Andrew Pearmain, an NUS executive member, said of the nationwide protest: "We feel we have shown in a positive, constructive way how students and staff can together show up the crisis in higher education."

Back at South Bank one Malay student was appropriately reading Thoreau on civil disobedience. All part of his law course. Another law student said it was his best chance for some time to catch up on his notes. "I am a long way behind."

Mr Michael Collins, shortly to take over a student union president, put the

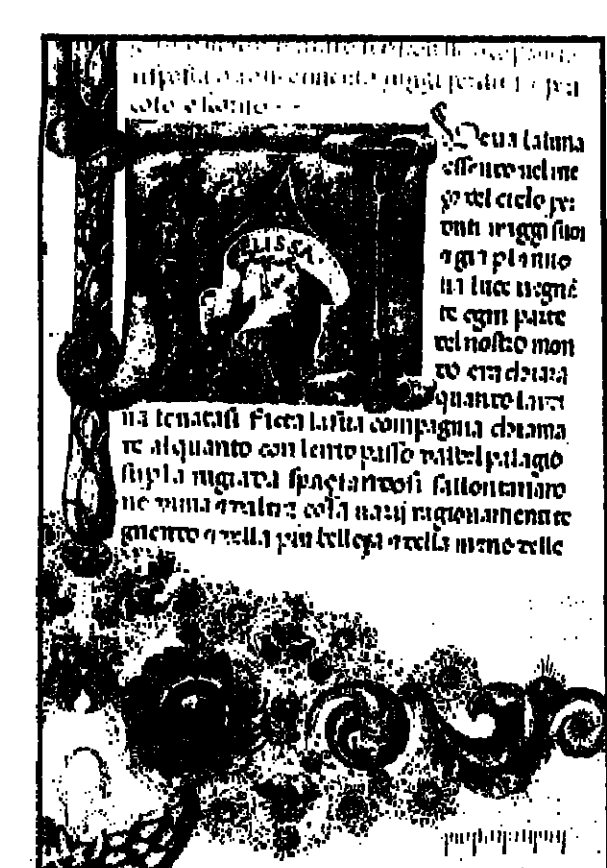


A Bristol Poly student (above) clutches her sleeping bag for warmth in an overnight library sit-in. Right: Nose to the grindstone at South Bank.

low turn-out down to the novelty of the idea. "But it's definitely a good idea," Mr Collins was studying French absolutism, reading a chapter on the decline of the old economic order.

Midnight and students take their first break: Mars bars, Kit-Kats, bread and cheese washed down by black coffee spooned out of a huge catering tin. (Half a crate of milk laid in for the night was sadly off.) The students discuss the need for more action, and the NUS leadership.

Elsewhere the librarians sip their way through a bottle of Moselle medium dry, with bacon flavoured crisps before snatching some sleep. Mr Outtrim disappears with a book on imperial Berlin. No incidents at the first collaborative work-in. But as the porter said wryly: "It might have been okay with more people." Your correspondent retired soon after.



Bodleian completes Holkham collection

Seven illuminated manuscripts, including Byzantine Gospels dating from the eleventh century, have been handed over to the Bodleian Library, completing an important collection of Greek manuscripts owned by Oxford University.

The manuscripts come from the collection of the Leicester family kept at Holkham House, and were given to the Government in lieu of capital transfer taxes. They are worth £248,680.

The three Greek manuscripts, gospels dating from the eleventh century, and from the early thirteenth and fourteenth centuries, and a copy of Homer's Iliad by an Italian scribe, Gerard of Padua, all fully illuminated with evangelist miniatures, complete the Bodleian's Holkham collection.

The collection was started by Sir Edward Coke of Norfolk (1552-1634), Lord Chief Justice under James I. The Greek manuscripts were acquired by Thomas Coke (1698-1759) who undertook a six-year grand tour in Europe. He built Holkham Hall in Norfolk. Thomas William Coke (1754-1892), a great agricultural pioneer in cattle breeding and arable farming, extended the collection. He was created first Earl of Leicester of Holkham in 1837.

Dr Bruce Barker-Benfield, from the Bodleian's department of Western manuscripts, said: "They complete our Greek collection making it among the most important in the country. If they were paintings they would be hung on display. As manuscripts only two pages can be seen at a time." They will be on display in the Bodleian shortly.

Trainee doctors get raw deal over exams, says report

by Robin McKie

Science correspondent

Medical training throughout Europe has been attacked by the World Health Organization for its "inappropriate and unreliable" methods of assessing students. A newly published report of a meeting of the WHO working group on the assessment of competence complains that "much emphasis is placed on simple factual recall, and little emphasis on many vital aspects of health professional performance".

Although the group acknowledges the difficulties in changing practices for testing medical students which have become "traditional and time-honoured," it urges all educational institutions, including medical schools and university faculties, to re-examine their assessment programmes.

It was particularly important that tests were valid and reliable. "The group felt that the more important of these was validity," the report states. Assessment programmes should therefore test the right attributes in a student. "One example, for example, test a student's ability to examine patients and to communicate with them using a system composed solely of written tests however reliable these may be devised."

The group also calls for medical education institutions to reconsider the emphasis placed on assessing factual knowledge. Although necessary for a future physician, factual knowledge

was only one prerequisite to successful performance. "Other attributes are relatively neglected, such as the ability to generate and test hypotheses, psychomotor skills, skills relating to interpersonal communication, and professional attitudes."

Similarly most examinations merely lead to a student being passed or failed, the group complains. Instead there should be more "diagnostic" assessments to guide students in their studies and this would include provision for regular self-assessment, as well as testing by tutors and peers, and give an opportunity "for remedial instruction".

"The ultimate aim should be to develop a learning environment in which the student acquires the will and habit constantly to review his performance against that of others, against agreed standards or criteria, and against his own ideals. In this way the importance of external assessment will be reduced," thereby encouraging creativity, self-responsibility towards a professional lifetime of learning and educational freedom."

The report concludes that European countries should encourage educational institutions to conduct further research into current assessment techniques of the competence of health care professionals. The information collected would then be disseminated by the World Health Organization.

Comprehensive FE proposed

The Educational Institute of Scotland, Scotland's largest teaching union has recommended a comprehensive system of further education and vocational training for all school leavers in the 16-18 group.

The EIS's views are set out in a paper to the Parliamentary select committee on Scottish affairs, currently investigating youth unemployment in Scotland.

It points out that the aim of a comprehensive system is shared by the Manpower Services Commission, and in principle by the government, but it warns that this cannot be achieved quickly on a purely voluntary basis. "A statutory system of comprehensive part-time further education and vocational training for all 16-18s is imperative in order to enable this country to compete on equal terms with other advanced countries that have long enjoyed the advantage of such a system," says the report.

It adds that it is both socially and educationally unacceptable that young people should move at the earliest leaving age straight from compulsory education to unemployment.

The EIS rejects suggestions that the traditional education system should be scrapped in favour of one training people for increased leisure. "Gainful employment is essential to one's self-respect, and the work ethic is so deeply ingrained in us that if young people are denied the right to work they may well turn to the totalitarian solution as the only alternative."

Art course merger goes ahead despite blockade attempt

by David Jobbins

Attempts to block the transfer of an art foundation course from Leicester Polytechnic to Loughborough College of Art and Design have failed.

The polytechnic's governors and academic board have backed the merger, intended to rationalize pre-degree art teaching in the county, following a report from a working party set up to study the proposals after objections from staff.

The scheme needs approval from the county education authority before it can go ahead, probably in September 1982 a year later than the polytechnic had hoped. Governors have called for pre-degree standards and job prospects for polytechnic staff affected by the move to be safeguarded.

But the National Association of Teachers in Further and High Education at the polytechnic, is angry at what it regards as lack of consultation. "We believe this has been carried out on a purely economic basis. There has been no serious consideration given to the academic arguments and we intend to fight the closure," a NATFHE spokesman said.

A member of the art staff said: "Everybody regrets the course going on educational grounds. We are doing this with the greatest possible reluctance. It was not academic but financial considerations which led to the decision."

Course leader Mr Bob Leonard said: "If degree courses at the polytechnic came under pressure the amount of support for the foundation course might wither. Why should sub-degree work by supported financially when degree courses are suffering. We have to accept the decision but with regret."

A county council official said: "We will be looking primarily to two things. One is the financial implications for the two colleges and for the authority, but the more important are academic standards if the course is run at one rather than two institutions."

NATFHE at Leicester is also to press for improved consultations with the management following rejection of its plan to unfreeze teaching posts with money saved by not replacing an assistant director.

The polytechnic's academic board decided to press for a new appointment after hearing director Mr David Bell argue against piecemeal structural changes. Neither of the schemes he put forward as alternatives proved palatable, and senior academics opted for the status quo.

North American news

A chance to cut the red tape

from Clive Cookson

WASHINGTON However much universities may resent President Reagan's budget cuts, they realize that his coming to power presents them with a golden opportunity to unwind some of the red tape that the government has wrapped round their teaching and research activities over the last few years.

As soon as Mr Reagan was elected—with a commitment to reduce federal interference in American life—higher education associations began drawing up a list of government regulations that they wanted the new administration to abolish. Last week the American Council on Education (ACE) presented vice-president George Bush, who now heads the president's task force on regulatory reform, with the fruits of that work: a 140-page document recommending the relaxation or elimination of 70 regulations that place a disproportionate burden on higher education. "In our view each of these regulatory requirements diminishes the productivity of colleges and universities without contributing any corresponding benefit," wrote ACE President Jack Pellison in his letter transmitting the proposals to the White House.

The rules come from 18 federal agencies, from the immigration and naturalization service to the defence department, and they cover subjects ranging from civil rights to the disposal of hazardous waste. However the ACE "regulatory reform agenda" is not as sweeping or radical in its final form as some draft versions suggested by the council's staff earlier in the year.

In particular, the council has toned down early proposals to dismantle some government enforcement of universities' compliance with civil rights laws. The revision followed vociferous complaints that, if the ACE supported a major government withdrawal from civil rights enforcement, it would give further encouragement to conservatives who are trying to eliminate all government protection for women and minorities.

For example the ACE document recommends several important changes in the way the education department's office of civil rights administers its controversial regulations requiring equal facilities for women in college sports. But it makes clear that the main quarrel is with the way the rules are enforced "rather than the regulations themselves". That is a big change from an earlier proposal to repeal the regulations.

NAS attacks evidence of anti-abortion lobby

from our North American editor

The National Academy of Sciences has taken a stand against anti-abortion politicians who are attempting to use "scientific" evidence to make abortion illegal in the United States.

The academy, America's most distinguished scientific body, stepped into this highly emotive issue for the first time at its annual meeting last week. Almost unanimously, the members passed a resolution attacking the language of an anti-abortion bill sponsored by Senator Jesse Helms and Representative Henry Hyde.

NAS members took issue with the section of the bill that reads: "The Congress finds that present day scientific evidence indicates a significant likelihood that actual human life exists from conception." "The statement purports to derive its conclusions from science, but it deals with a question to which science can provide no answer," the NAS resolution said.

In addition, the scientists rejected the bill's proposal that the term "person" shall include "all human life". The resolution said it "has no basis within our scientific understanding. Defining the time at which the developing embryo becomes a 'person' must remain a matter of moral or religious values."

The Helms-Hyde Bill, which is supported by many right-wing Republicans, is an attempt to get round a 1973 decision by the US Supreme Court striking down all anti-abortion laws as an unconstitutional violation of individual rights. The proposed legislation

Dr Pellison picked out six regulations as the top ACE priorities for reform. Target number one is the Office of Management and Budget's (OMB) hated circular A-21, which lays down the accounting rules for all federal research grants.

Changes made in the circular two years ago are "having a major adverse impact on university research environment and a principal cause of disaffection between university scientists and the government", the ACE states. "The circular has become more than a set of cost principles; it has become the vehicle on which federal auditors rely to demand ever more precision and compartmentalization of faculty activities."

Circular A-21 now requires researchers to account for the whole of their working life, specifying exactly how their time is divided between teaching and research. The universities argue that it is absurd to make academics document the hours they devote to these two "inextricably intertwined" activities. They also want major reforms in the way Circular A-21 allows them to charge the government for the indirect costs of research and for the scholarships they give postgraduate research assistants.

Other recommendations on the priority list include:

- The Education Department should stop investigating complaints of sex discrimination in academic employment. Another federal agency, the Equal Employment Opportunity Commission should do the job.

- The veterans' administration should scrap several arbitrary restrictions on the use of educational benefits under the GI Bill.

- The environmental protection agency should drop its rule that colleges and universities must account in detail for their hazardous wastes — "an impossible task where an institution handles small amounts of hundreds of thousands of different laboratory wastes". Instead, "EPA should accept a general statement from a college or university as to the nature of wastes stored or treated, without any complex identification of the multitude of substances and compounds."

The occupational safety and health administration is another target of the ACE regulatory reform agenda. For instance the document asks the government to exempt universities from the OSHA rules on exposure to carcinogens, which it says were designed for industry and not for research and teaching laboratories. "There is no

evidence of danger arising from the procedures used in university laboratories at the present time" the ACE says. "The adaptation to comply with these regulations may radically alter the teaching processes of some institutions who do not have the resources to comply with them."

(However, there is one regulation that currently leaves out colleges and universities and which they want to include them. The Department of Energy's current procedures for allocating natural gas in a severe shortage do not mention academic institutions as high priority users, so their supplies would be cut off in an emergency.)

The ACE, the biggest American higher education organization, said the Reagan administration could implement all its recommendations by executive action. Congress would not have to amend any of the legislation underlying the regulations.

Apart from relaxation of specific regulations, Dr Pellison's letter to Vice-President Bush called for a general "change in the attitude of federal investigators, many of whom presently maintain that institutions of higher education are guilty of transgressing federal regulations until they prove themselves innocent". And, he added, "future misunderstandings could be reduced by the government using enforcement personnel who understand how colleges and universities function."

The new document is the second call for less Government regulation that the ACE has put into Mr Bush's hands this year. Last month the ACE business-higher education forum — a group of university presidents and corporate executives — produced a "statement on federal regulatory reform". It was a very generalized proposal to reduce federal controls over education and industry and made a series of familiar statements such as "federal laws and regulations should not intrude into the operations of corporations and other institutions unless there is a compelling economic and social need."

The ACE business-higher education forum accepted the controversial estimate by Murray Weidenbaum, chairman of the President's Council of Economic Advisors, that compliance with federal regulations costs American businesses and consumers about \$100 billion a year. The total cost to colleges and universities has been put at \$3 billion — an average \$1 million per college — by Howard Bowen, professor of economics at the Claremont Graduate School.

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would declare that human life begins at the moment of conception and that fetuses are therefore "persons" whose lives are protected by the constitution. Abortion could then be equated legally with murder.

At the time of their meeting, members of the academy were feeling particularly angry about the Conservatives who are pushing the legislation, because Senator John East had just finished a one-sided hearing on "when human life begins" before his senate sub-committee. Seven of the eight medical witnesses at the hearing were strong opponents of abortion who maintained that there was no scientific doubt that human life begins at the moment of conception.

The only scientist who testified at the hearing for the opposite point of view was Leon Rosenberg, chairman of human genetics at Yale University Medical School, who stated: "I know of no scientific evidence which bears on the question of when 'actual human life' exists." He told Senator East that the other scientific witnesses had "failed to distinguish between their moral or religious positions and their professional judgments".

Dr Rosenberg may have felt isolated in the senate hearing room, but the NAS resolution showed that America's scientific establishment agreed with him. Although the Helms-Hyde Bill is intended to outlaw abortion, one side effect would be to put an end to much research on human fertility, including all attempts to fertilize eggs outside the womb.

Yale student wins Vietnam memorial competition

An undergraduate architecture student from Yale has won the national competition to design an official memorial to the 57,692 Americans killed in the Vietnam war.

Maya Ying Lin beat 1,420 other entrants, including the professor who gave her the project as part of a course on funerary architecture at Yale. She got a B grade on the course.

Miss Lin's winning design shows two black granite walls 200 feet long, meeting to form a huge V. The names of the fallen will be inscribed on the wall in chronological order of death, in letters three-quarters of an inch high. Congress authorized the project last year and gave the Vietnam Veterans Memorial Fund a site in Washington for it, between the Lincoln Memorial and the Washington Monument. But

the fund must raise the \$7m needed to build it from private sources; \$1.2m has been contributed already.

The competition, said to be the biggest architectural contest ever held in the United States, attracted hundreds of well known architects working in private practice and in university architecture schools. But 21-year-old Miss Lin scooped the \$20,000 first prize from them all.

Miss Lin was born in the United States of parents who left China in the 1940s. "Of all the proposals submitted, this most clearly meets the spirit and formal requirements of the program," the judges said of her entry. "It is superbly harmonious with its site and yet frees the visitors from the noise and traffic of the surrounding city."



The very first GI to be killed in the Vietnam war: Tom Davis, who died near Duc Hoa, South Vietnam on December 22 1961.

Free tuition as bussing incentive

Taking a novel approach to the vexed issue of school desegregation, the Reagan administration has proposed free college tuition as an incentive for children to take part in a voluntary bussing programme.

Although the federal district court ordered bussing within the city for 1980/81, no desegregation scheme restricted to the city can really achieve racial balance because such a large majority of its pupils are black — a problem shared by many urban school systems in the United States. Therefore the court is now considering whether to order an extension of the programme to take in the mainly white suburbs.

However, *The New York Times* has already condemned the plan as a "stunt" or "fantasy" because its sponsors, the federal government and the city board of education, are not proposing to share any of the costs. "Even if there were money to pay for it, this plan should be recognized for what it is: an attempted quick fix in court, not a national policy by an administration trying to help desegregation succeed."

University of Missouri chancellor Barbara Uehling disagreed. "The university has no official position on this," she said in an interview. "But, speaking for myself, I thought that the proposal showed some remarkable creativity in addressing a very complicated problem in a positive way."

Dr Uehling said the university would not suffer any direct financial effect if the plan went ahead. But the state might cut back other forms of student financial aid to pay for the free tuition of participants in the voluntary desegregation scheme.

race. Resentment would inevitably build up, he predicted.

The justice department estimates that 2,000 black pupils would transfer to suburban schools in the first year and 775 whites would move to four new "magnet schools" to be opened in the city, if its proposal is accepted. By the third year up to 8,000 black schoolchildren might be involved.

The fate of the proposal will be decided by the US district court. If it is accepted, despite the state's opposition, the department may consider applying the same idea in other segregated cities, a spokesman said.

However, *The New York Times* has already condemned the plan as a "stunt" or "fantasy" because its sponsors, the federal government and the city board of education, are not proposing to share any of the costs. "Even if there were money to pay for it, this plan should be recognized for what it is: an attempted quick fix in court, not a national policy by an administration trying to help desegregation succeed."

University of Missouri chancellor Barbara Uehling disagreed. "The university has no official position on this," she said in an interview. "But, speaking for myself, I thought that the proposal showed some remarkable creativity in addressing a very complicated problem in a positive way."

Dr Uehling said the university would not suffer any direct financial effect if the plan went ahead. But the state might cut back other forms of student financial aid to pay for the free tuition of participants in the voluntary desegregation scheme.

Overseas news

Pretoria to set up township colleges

from Graig Charney

JOHANNESBURG The South African government plans to establish a set of segregated universities for black students, according to authoritative official sources.

The plans mark a reversal of previous policy, which permitted blacks to study only at four "bush colleges" in the rural Bantustans or in a handful of places in the ten white universities. However, they maintain the tradition that blacks must study in separate, and in practice, inferior institutions.

The intention is to establish a new university with its headquarters in Pretoria, the capital, and campuses in the various black townships outside the major cities.

Patterned after the existing bush colleges, the new township colleges will offer only a limited range of degrees and diplomas in basic humanities subjects.

Like the bush colleges, their autonomy will be restricted. Appointments of professors, registrars and rectors will require ministerial approval, which is not the case at white universities.

The new institutions will cater for both full and part-time students, but they will have no residential facilities.

Draft legislation has already been drawn up providing for the new institution, and it is expected to be presented to the next session of parliament, soon to open.

The Government appears to have decided on this new course of action without waiting for publication and discussion of the Relief Commission report on Higher Education for Urban Blacks. This report, which was to provide a framework for the consideration of a new education policy, should appear within the next few months.

The issue of what form of opportunity for higher education to be offered to the country's five million urban blacks — one-quarter of the disenfranchised black population — has become an increasingly urgent one for this country's white rulers.

Observers regard the new policy as a

shift from the crude 1950s apartheid of Hendrick Verwoerd to the more sophisticated neo-apartheid policies of prime minister Mr P. W. Botha.

While the economy's need for trained manpower probably had some influence on the decision, the real need of the economy is for technical rather than professional training. But the new move appears to fit in closely with Mr Botha's "total strategy" aimed at winning over a black elite, offering concessions to its children and leverage over its elders through the control of access to university.

If experience is any guide, the new black institutions will be far less well endowed than white universities. At already existing black colleges, expenditure per student is often as little as one quarter that at white universities.

There is also concern among educators about the limits to the new institutions' autonomy — and the consequences for their academic quality. "Who are they going to get to teach there?" asked Professor G. R. Bozzoli, former vice-chancellor of the University of the Witwatersrand. "Who's going to go to a university that's not autonomous but washed-up academics who can't get jobs elsewhere?"

Yet though the new universities will probably prove inferior to the white ones, they are likely to drain away a large share of the few black students now allowed to attend white universities.

Moreover, educators worry that the township colleges will distort educational development even if racial bars are eventually lifted at all universities, by preventing the growth and natural integration which would otherwise occur at the white institutions.

Rather than create separate new black institutions, Witwatersrand University has long-standing plans for expansion to accommodate blacks or to create a satellite campus.

"If they were to let Wits establish a campus in Soweto, that would be far better than starting a new university, with no tradition, no experience," said Professor Bozzoli.

Geoff Maslen reports on a campaign by academics for more government projects grants for university

Australia's research aid shrinks

MELBOURNE

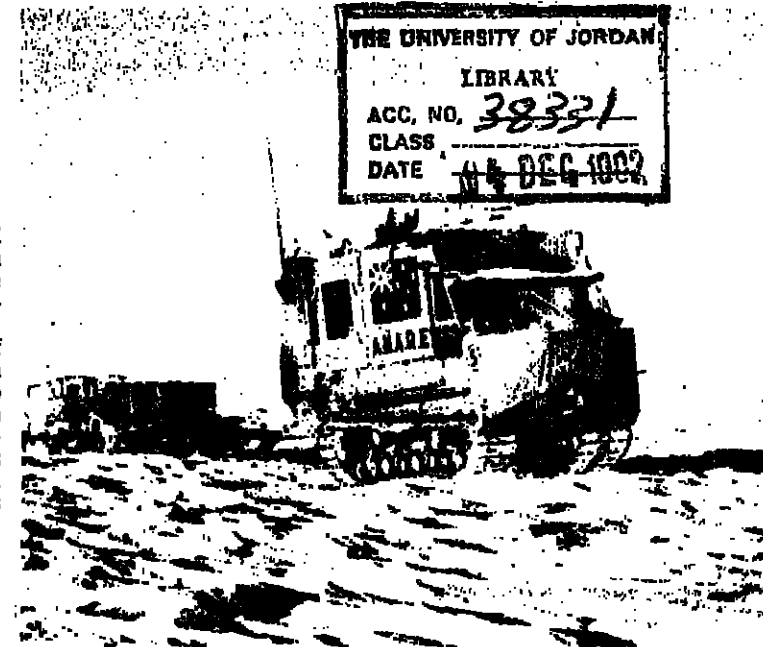
Basic research in Australia suffered a further setback this month when the Commonwealth government reimposed tuition fees for postgraduates.

The move follows hot on the heels of a new campaign by academics for a doubling of the government's grants to research. According to the Federation of Australian University Staff Associations, 16 years after the Menzies government introduced the research grants scheme, the real value of aid has been halved.

At present the scheme provides A\$16m (£8m) a year to fund research in universities and colleges. Academics have called on the government to boost this to A\$32m (£16m) by 1984. On 1966 values the average research grant, which keeps 800 researchers in work, has shrunk to a quarter of what it was. A\$9,800 (£4,900) in 1960; A\$5,000 (£2,500) in 1971; A\$3,400 (£1,700) in 1976 and A\$2,200 (£1,100) this year.

As the federation continues to proclaim at every opportunity, of the 24 nations in the Organization of Economic Cooperation and Development, only Iceland, New Zealand, Spain and Portugal spend less on basic research than Australia. The United States, West Germany, France and Japan lead the developed world.

The decline is paralleled in other OECD countries as the organization's recent report, *The Future of University Research*, documented. The report noted that the chances for future innovation would be considerably reduced by the decline in university research. Much of the present difficulty in innovating stems from a combina-



The Antarctic project gets the biggest basic research funds.

tion of ill-contracted in recent years: financial insecurity, lack of staff recruitment, declining capital investment and postgraduate enrolments, the report said.

As far as Australia is concerned, expenditure on basic research is less than half the amount spent on defence research. Basic research can be split into two sorts — pure basic research and strategic basic research. Pure research seeks to add to the knowledge of the world, without any particular application in mind, while strategic research is directed towards a particular topic or application. The projects funded by the Australian Research Grants Scheme are 70 per cent strategic and only 30 per cent basic.

As all pure researchers realize, their work is the most difficult to justify in economic terms. Yet it is from the

Industrialists want mobile graduates

from James Hutchinson

BONN West German industry says it is looking not so much for highly specialized graduates as for mobile, flexible ones who have had a broad university education and who can be expected to "solve a variety of problems". Ideally, the employers' federation suggests, they should be trained in business management, organization and data processing.

The federation proposed that university courses for people intending to seek careers in industry should include a practical term in an industrial concern, experience abroad would also be an advantage. And in principle courses with a vocational bent were favoured by industrial employers.

A recent inquiry commissioned by the employers showed that more than 70 per cent of personnel officers engaged graduates of polytechnics as well as of universities for preparation for senior posts. Indeed polytechnics are acknowledged to provide better training than the universities for careers as sales managers and in personnel departments.

The universities complain that too many gifted people who are eminently suited to a career in university research are being lost to industry.

Meanwhile the trade unions are demanding that the universities provide more places for people with qualifications other than the *Abitur* the equivalent of A level. Qualifications attained in co-educational training, at the place of work or in evening courses, say the unions, should carry just as much weight as the *Abitur*.

At present about 70 per cent of German students were awarded places on the basis of the *Abitur* obtained at the gymnasium or grammar school. Nearly 20 per cent come from technical schools and small proportions from comprehensive schools (still not widely established in Germany) and evening schools.

French traditionalists accused of promotion patronage

from Guy Neave

PARIS Disquiet is growing in academic circles about the working of the Higher Council for University Staff.

The Conseil Supérieur des Corps Universitaires was created just under two years ago following a major shake up in the career structure of French academics introduced by the law of August 15 1979.

Under the terms of this legislation tenure and promotion is decided by the Conseil Supérieur.

The Higher Council is a national body, sitting in Paris, made up of 54 subject panels whose job it is to review appointments to posts in their discipline. One third of its members are nominated directly by the minister of higher education. The remainder are elected.

Almost from the moment it started working in February this year, the Conseil Supérieur has been subjected to bitter reproach by certain sections of French academia. According to the major teachers' union in higher education, the Syndicat National de l'Enseignement Supérieur, geographers teaching what is held to be "traditional geography" are likely to have a better chance of promotion than those ardent for innovation.

Among the philosophy fraternity the feeling is strong that criteria other than the purely academic are being considered for appointments in that field. A large number of posts both at professorial and lecturer level remain unfilled. Candidates with an international reputation have been awarded away by the promotion committee. It seems one time students of the sociologist, Pierre Bourdieu, are not looked upon with favour.

To these accusations of favouritism and unwarranted patronage are added complaints that the higher council is acting in a way more party political

than academic. Control over academic appointments from the centre, the Syndicat Général de l'Enseignement Supérieur, recently pointed out, bids fair to become a new muzzle on the university and a means for the party in office to ensure its supporters in the university world reap the rewards for their political loyalty rather than their deserts as contributors to scholarship.

The situation is made no easier by the fact that the forthcoming round of promotions is likely to be the last major one for some time. The 1980 higher education budget provided for some 3,000 upgraded posts this academic year. Those who fail now are going to face a prolonged period as probationers or in untenured appointments.

Though the number of assistants has tended to fall over the past four years as a result of the Government's policy of accelerated promotion, there still remain thousands of assistant lecturers with little or no prospect of gaining a permanent job in university. Some of them, it is reckoned, have up to 14 years teaching experience in higher education.

Much of the tension and fear over the way the higher council is operating springs from the selection procedure it adopts. Candidates for tenure or for promotion are expected to give a mini lecture before the selection committee and to discuss it afterwards. The selection committee, drawn from members of the subject panel, are also presented with two reports on each candidate from two of its members. The reports evaluate the academic qualifications and achievements of the applicant.

Already in December 1979 this system had been the subject of considerable misgivings. In one subject panel, dealing with mathematics and computer sciences both the chairman and 36 out of a total 47 resigned in protest against this method of selection.

as proposers of good quality projects, are being cut out completely from the scheme's funds.

As part of the Australian academics campaign, the federation has produced a booklet detailing 83 examples of research successes which illustrate the practical benefits which could accrue from pure research. The booklet summarizes the achievements of people who received grants under the scheme in 1970. These include:

- A new method of fighting oil well fires, now used by Saudi Arabia, and discovered by a Sydney scientist given A\$12,120 (£6,060) to investigate shockwaves;
- Improvements in the design of many major structures in Australia from a bridge across the Yarra river in Melbourne to a mining stack in Mount Isa, which arose following a A\$5,221 (£2,610) grant to a Monash professor for Mofel scaling of wind effects on structures;
- Improved ability to predict thunderstorms, stemming from a West Australian physicist's study of hailstone growth;
- Pioneering work in the techniques making in-vitro fertilization possible, the storage and transfer of embryos that culminated in the birth of "test tube babies";
- An A\$850 (£425) funded study into the oxidation of aromatic compounds which resulted in one product showing promise as an inhibitor of leukaemia.

- A larger A\$1,075 (£538) grant for a study into information processing in listening and speaking has led to an important new theory on the nature of schizophrenia which has attracted world wide attention.

The booklet, with other examples ranging from football stadium design to food production, has been sent to every federal MP. Unfortunately it appears to have had little impact on the politicians who decided to introduce fees for the 30,000 postgraduate students — at least 20,000 of whom will eventually be affected. The federa-

tion's president, Dr Peter Darvall recently divided Australia's politicians into three groups: the helpful, the non-committal and the "plain philistines or troglodytes".

The ones who put up the fees proposal obviously fall into the last category.

According to Dr Darvall, the decision to charge postgraduate fees will prove a costly mistake, which will curb the country's most talented people, not encourage them.

"Souring the cream of our human capital in this way is short sighted. Especially since the temporary saving to the public purse is so small", Dr Darvall said. He pointed out that professions such as engineering, commerce and science are constantly improved by those who voluntarily upgrade their qualifications by masters by coursework. The introduction of postgraduate fees would encourage the professions to march back into the 1950s, Dr Darvall said.

Australia's computer industry backed the federation's condemnation of the Government, Mr Karl Reed, national chairman of the software industry committee of the Australian Computer Society, said the imposition of postgraduate fees would have the direct consequences. He said there was already a crisis in computing education with university facilities unable to attract sufficient numbers of graduate to higher degree courses.

"The computing industry in Australia is worth A\$1,600m a year and employs 60,000 people. The demand for computer graduates is phenomenal with 3,000 to 4,000 new jobs every year being created. Yet only about 1,200 graduates are available to take up these positions."

As in some other fields, qualified computer engineers were already forced to make huge financial sacrifices to do postgraduate study compared with what they could earn in industry.

Paul Flather describes the covert activities of Patočka University

The post-Tomin tribulations of Czechoslovakia

There are unmistakable signs that the authorities in Czechoslovakia are clamping down on all forms of opposition. Last week dissident sources reported the arrests of 30 people, most supporters of Charter 77. This new hard line widely expected by opposition groups and without doubt a reflection of the current crisis in Poland, is likely to provide one of the sternest tests for the survival of the series of unofficial seminars run by dissident academics in Prague, Brno and Bratislava, and collectively known as the Patočka University.

These "alternative" seminars, arranged secretly and held in cramped flats, with lecturers and students courting arrest and harassment from the secret police, were dramatically highlighted in the West last year, and reported extensively in *The Times* through the experiences of Julius Tomin. Three Oxford dons invited by Dr Tomin to lecture at his seminars in Prague were unceremoniously dumped on the Czech border. Dr Tomin himself was eventually forced into exile with his family and now lives and works in Oxford.

While the spotlight naturally hovered on the defiant and public stand of Tomin, other equally courageous academics favoured a less provocative style of discussing ideas. Even these groups appear to be threatened under the new hard line. Last week Dr Jan Těsar, a historian and expert on Czech German relations, and a key figure in the establishment of the Patočka University, visited London. He put the position very bluntly: "For us success would be if the university manages to survive all the attentions of the security police."

Dr Těsar now lives in West Germany after being freed from prison hospital where he was seriously ill in May 1979 on condition that he left Czechoslovakia immediately. He had already been deprived of Czech citizenship, and had spent six of the previous 10 years in

prison for "subversion of the Republic". In April 1969 he was co-author with Rudolf Battěk of the famous 10-point Programme, one of the earliest acts of opposition to the Husák regime which took over after the Soviet invasion. In 1971 he was arrested again for handing out leaflets reminding people they did not by right have to vote for official Party candidates. He was a founder signatory of Charter 77, and the VONS civil rights committee.

Dr Těsar was one of three men who met in a private flat on June 2 1977 to discuss plans to co-ordinate the series of haphazard and informal study groups which had been developing since the early 1970s in three main centres, Brno, Bratislava and Prague. The other men were Dr Zdeněk Václavík and Dr Ladislav Hejlicek. Each came armed with papers drawn up after widespread consultations. They knew that almost nine years after the end of the Dubček experiment to create "Socialism with a human face", Husák had no intention of allowing any degree of freedom to intellectuals.

They decided to try and integrate existing courses around key themes, and so was born the Patočka University — named after Professor Jan Patočka, a driving force behind some of the early unofficial seminars, and then Charter 77. The university began as an experiment not so much to provide an alternative education system but to allow persecuted intellectuals to keep in touch. Above all the university was to be non-political. "You see, we were persecuted simply for teaching about Plato, or giving a lecture about architecture," Dr Těsar said. "We just wanted to study. The police saw it as political activity."

The strategy was to run a series of lecture courses from the autumn that year. The lessons were very harsh. In Bratislava the first two lectures on philosophical topics were each attended by 30 students. During the third lecture police broke in and took



Philosopher Julius Tomin and Students

all the students by van to a field outside the city and warned them in no uncertain terms of the repercussions of attending further "anti-state" lectures. At a stroke the experiment was ended. During police interviews after the event, Dr Těsar was told that security police had been quietly observing the dissidents, and were under instruction to stop the university developing.

In Brno about 20 students began regularly attending fortnightly lectures. But on several occasions students were warned by police, some of those who played host to the seminars, others expelled from the seminars, and some arrested. Czech academics risk not only police harassment but also their status in society, their jobs, their flats, and their privileges. That is why Tomin had to work as a nightwatchman in a zoo and a boiler stoker; Dr Těsar was simply considered "unemployable" and was even refused work as a shepherd.

Secondly, the Polish authorities never saw the Flying University as a major threat to Party dominance, or if they did they had their hands full dealing with other forms of opposition. Husák of course learnt from the Polish experience, and looking over his shoulder is now even more determined not to

allow any relaxation of his grip. Dr Těsar believes there are ways academics in Britain and the West can help academics in Czechoslovakia pursue their profession — to study and discuss ideas. Dr Těsar urges universities and colleges, and individuals, to start sponsoring individual courses, helping to provide papers, books, money, and if required visiting lecturers. This type of "demonstrative action" can work very effectively as was shown when the authorities relented over the trial of a group of historians in 1971 because American historians threatened to boycott Czech universities. The group had produced the famous Black Book, a record of the 1968 invasion.

"If there is strong support from the West, and academics threaten to boycott state institutions then the authorities must choose between losing European friends and allowing the courses to go ahead," Dr Těsar said. It is worth very serious consideration.

For information about sponsoring courses run by the Patočka University please contact the Pallach Press, 19 Earham House, 35 Mercer Street, London WC2.

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Peter David looks at how conservative academics faced up to a right-wing threat to university traditions at a meeting in Lisbon.

Defenders of the lost faith

For universities it is always the worst of times. In 1970 a group of distinguished academics met in Norwich and founded an international organization to defend the West's beleaguered universities against the militants of the student left. They called it the Council on the University Emergency and mounted robust attacks on the activists who were endangering the "ordered freedom" of the apolitical university.

Two weeks ago the council met again in Lisbon. Eleven years and a new name — it is now the International Council on the Future of the University — had not sweetened its members' tempers. True, the threat from the student left had disappeared from many Western campuses. But the left's ideological successes of the last decade lived on in shape of bloated universities and equality-mongering legislation. More ironically, a new and perhaps greater threat had emerged, not from students kicking against authority but from established Governments of the libertarian right.

It took something like a dramatic flourish to bring this new threat home to the 100-odd academics at the Lisbon conference. Professor John Passmore, president of the Australian Academy of Social Sciences, had intended to close the conference with a powerful attack on the politics of "doctrinal egalitarianism" which still threatened to destroy the universities and frustrate the pursuit of excellence. His paper, circulated in advance, had been much admired.

By the time he took the platform at the Gulbenkian Institute, Professor Passmore had changed his mind. Discarding the prepared text, he said that the emphasis on equality in Western politics was on the wane and the emphasis on liberty was increasing. This new emphasis was not like the old conservatism which had respected the autonomy of the universities. It was part of a complex of inconsistent and potentially philistine ideas espoused by governments of Australia, Britain and the United States. Already Mr Fraser and Mrs Thatcher had interfered more in the affairs of the university than had the Labour governments which preceded them, he said.

"We are called upon now to confront a political situation quite different from a few years ago, and one in which we will have to fight very hard to defend the university," he said. "We put up a poor show against the students' revolt. This organization will have to consider a set of problems which are entirely new in character."

Earlier in the conference a rather similar diagnosis had come from an equally unexpected source. David Martin, professor of sociology at the London School of Economics, rounded on the Tory Government for betraying the very values which the right in the universities had fought so hard to defend.

In the 1960s British universities had resisted the assaults of "anti-nomian students and seditious dons, and the damaging nonsense of participation and non-subjects," he said. Under a Conservative Government, they might sink into mediocrity and provincial mediocrity, controlled by centralizing state power in the name of laissez faire.

"Ironically for those of us who opposed student anarchy, our critique of the sixties had been taken up in a philistine and narrowly utilitarian way," said Professor Martin.

That some of the ICFU's founding members should turn on their erstwhile allies on the right was ironic. At a conference in Venice in 1973 Ralf Dahrendorf that a university defence organization was "bound to find itself in a kind of political com-

pany which will defeat its motives purely by association." The council's rightist sympathies have, as Professor Dahrendorf predicted, undermined its credibility in academe without winning it commensurate influence with new and hostile conservative governments.

An even sharper irony was the whiff of nostalgia for the turbulent 1960s. When the barbarian students were at the gates, defenders of the traditional university knew what they did not believe in — imposed egalitarianism and the fetish of "participation". The dwindling of the student revolt had brought a dwindling of the moral certainties which lay behind the creation of the ICFU. The barbarian tide had receded, said Yale's Professor Vann Woodward. It was now time to examine the faults of the clerisy itself.

In replying to this plea for critical introspection the Lisbon meeting turned out to be both uncomfortable and impressive. Uncomfortable because, by reinterpreting the 1960s from the vantage point of 1981 even the champions of the traditional university had to confess that there had been then a sort of collusion between the insurgent students and the university authorities. Impressive because, in analysing this collusion, distinguished academics were now ready to question the inner coherence of their own disciplines and values.

Professor Nikolaus Lobkowicz, rector of the University of Munich, cited Lenin's dictum that a revolution needed more than a new class ready to take over: the ruling class had also to be resigned to giving up. "This dictum, it seems to me, also applies to recent developments in our universities," he said. "It indicates the one major reason why the universities have given in so quickly to the onslaught of the spirit of the age. The ruling class gave up, not because it could see no advantage in sticking it out, but rather because it did not recognize a reason to hold out beyond personal advantage, and it was ashamed, as it were, to continue to fight for this reason alone."

The values of the universities were eroded because many faculty staff did not believe sufficiently in the value of the university according to Professor Lobkowicz. They abetted the student left because they were unable to legitimize their traditional

The International Council on the Future of the University is probably unique in limiting its membership to academics from the advanced economies and "free" societies. It was founded as the International Council on the University Emergency in 1970 largely in response to the explosion of left-wing student militancy.

Today it has more than 300 members drawn from 21 countries. Although its small permanent staff is based in New York, American membership is limited to half the total so that the international nature of the organization is maintained.

Receiving money from a number of private sources, including the Ford, Rockefeller and Exxon Foundations, ICFU has been regarded since inception as leaning towards the right. Its political flavour was set out in a statement approved by its second international conference in Toronto 1977.

This stated that the principles of democratization, equalization and politicalization which were having a profound impact on universities in the West were "inimical and disruptive of institutions dedicated to learning, knowledge and scientific progress."

The statement continued: "The indisputable fact is that nearly all the countries with which we are here



version of the university in the contemporary world.

Professor Lobkowicz ascribed this collapse of confidence within the university to a wider spiritual crisis of the age — the inability of advanced societies to transmit their culture simply by introducing the young into adult society. Universities, as assemblies of uprooted young people, had simply been the fulcrum of the crisis.

A very similar paper by Allan Bloom, professor of political economy at Chicago, carried the analysis, and the blame for the crisis, deeper into the structure of university life. Faculty had conspired in the softening of the inner core of the universities because, particularly in the humane disciplines, they no longer believed in their subjects.

"The sixties brought to the surface the submerged fact that the university no longer has any real unity of purpose, no community of subject matter or vision," he said. "The natural and the human sides of the university are now almost accidental travelling companions, as it were, sharing the same ship."

The humanities had been most damaged by this disintegration of the community of knowledge. The natural sciences retained confidence in their mission, and the social sciences, by emulating them, acquired a vicarious self-confidence. The

concerned are already confronted, some more, some less, with an unmanageable explosion of student population.

"One consequence is, or soon will be, that universities are overproducing, and in doing so are creating a costly and self-destructive type of mass unemployment: the unemployment of intellectuals or pseudo-intellectuals."

Among the leading and founding members of the council are a number of (mainly elderly) American social scientists of world standing, like Edward Shils, Seymour Martin Lipset and Nathan Glazer. In recent years, though, the council appears to have travelled universities for younger and sometimes more liberal academics concerned about university problems.

The council publishes a journal, *Minerva*, and has now organized three international conferences. It has published reports on individual countries. One of them — on West Germany, became the subject of considerable controversy.

At the conference in Lisbon, dedicated to "the pursuit of truth in the eighties", the council elected Paul Seabury, professor of government at Berkeley, its new chairman.

Julius Gould, professor of sociology at the University of Nottingham, is one of ICFU's trustees.

humanities, on the other hand, had become merely the preservers tradition.

"But this is just where modern regimes are most inimical to the intellectual life. As Tocqueville so brilliantly showed, men in democratic societies have no confidence in their own judgements and above all accept no authorities. Tradition is just information. Moreover, the principle of utility dominates their lives. Natural science can be admired for its utility in the production of well-being. But the humanities cannot, and to the extent that they try to justify themselves on utilitarian grounds to an audience motivated by utility, they corrupt themselves," said Professor Bloom.

Any temptation at the conference to gloat about the receding left militant tide was stifled by a belated recognition of the extent to which the efforts of the defenders of the university had been enfeebled by their own doubts. The ascendancy of the philistine right, meant the need for some intellectual and moral certainties within the university was even more pressing.

In diagnosing the ills of the university there were elements of consensus. In prescribing a remedy, participants adopted very different approaches. Some, particularly the Australian and British members, addressed the pragmatic question of how to give an account of the university which could find some resonance in the new political climate. Others, notably the French and the Germans, wanted to explore the epistemological problem of defining "the essence" of the university in the world of ideas and action.

Tackling the problem on the political level, Professor Passmore said universities could no longer justify their expansion by arguing the case for more professional training. In advanced societies, the oversupply of professionals was seen, in the case of doctors for example, as simply the generator of new demands. Governments were tending to invest in technical training at the expense of the universities.

To make a case for the universities, he said, it was necessary to argue that this investment in training was short-sighted; that our societies were bound to undergo such radical changes that they would need critical and adaptable people who had learned, through universities, to understand and apply general principles.

"We are going to need imaginative people who can face a wide variety of unexpected circumstances," he said. "We are going to need people who are critical. If we can say that we produce such people in our universities we have nothing to fear from public controversy with this new type of government."

For Professor Lobkowicz, how-

ever, that kind of solution was inadequate. It appealed to anxiety about the so-called "Japanese threat" — the fear that Japanese products would eventually control world markets and reduce the West to poverty.

Instead of appealing to economic arguments, he said, it was important to base a plausible idea of the university on "something like a philosophical anthropology". Like many of the discussions of our time, the discussion about how the university should look was ultimately a controversy about what man was and his ultimate destiny.

He concluded: "We may succeed in establishing efficient and high standard universities; but a university is not merely a technocratic task, a preparation for professions. Its central virtue is something like thoughtfulness, pensiveness and the admission that the truth is always more complex than we believe."

Attempts like these to divine the "essence" of the university counterpointed in Lisbon with the familiar crescendo of papers fulminating against the democratization and politicization of the universities which followed the student rebellion of the 1960s. But at least one American speaker, Yale historian Professor Robin Winks, found the European debate too ideological.

In America the universities from the outset had been more democratic than those in Europe, he said. By the mid-nineteenth century they were service-oriented and not, like their European counterparts, the gatekeepers of elite culture. So many of the apparently radical changes forced in the 1960s were in fact part of a mainstream tradition of American higher education responding to public needs.

The real question in the United States was how democratic and accountable universities should be. This was not primarily a debate between left and right.

"Yet, one suspects, both political positions — that which would force the university to adhere to programmes of social reform by manipulating the long strings attached to the flow of dollars, and that which would profess to wish to leave to the universities alone to carry out their traditional missions of excellence — pose dangers to the independence of the university in about equal measure," said Professor Winks.

"Indeed, there is the fearful symmetry the academicians — whether student, faculty or administrator — must define the balance between being of the world yet not in it, the balance between serving society without accepting society's dictates, and yet not without falling into the arrogance of presuming to know what is best for others."

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Olga Wojtas meets William McIlvanney, writer-in-residence at Aberdeen University



William McIlvanney: "A Fifth Column"

Booked up for beginners

William McIlvanney, one of Scotland's finest modern writers and currently the highly valued writer-in-residence at Aberdeen University, was having difficulty with the clasp on his egg roll. "How do you get into these things?" he demanded after struggling with it ineffectually for several minutes.

Some steadily munching academics eyed him dubiously. Eventually, baffled, he padded off to get a knife to attack it.

It was scarcely surprising when he went on to say he saw the role of creative writing as providing a benignly subversive element in a university. "It's a fifth column within the academic context because it treats writing not as butterflies on a board but as something living."

McIlvanney's first brush with subversion came in 1970 when in the middle of a school-teaching career he became creative writing tutor to American students at Grenoble University.

Having been used to teaching quiet Scots pupils sitting in decorous rows, McIlvanney was suddenly confronted by a bunch of barefooted youngsters in headbands, who called him "Coach" and had "an ability to articulate freely without a great deal of thought."

However, their energy carried McIlvanney through the course, and he was duly accorded the ultimate accolade: "Well, coach — it was real."

He admits that had it not been for Grenoble, he would probably not have accepted the Aberdeen post. But by then he knew what he wanted to do, and what he could do. "It's essential to get rid of false expectations. Nobody makes anybody else a writer — people become writers despite other people."

His remit in Aberdeen was to give two public lectures, and he in an office from time to time for people wanting to

discuss their writing. "But the impact of your arrival dissipates pretty quickly, and if that's all you're doing, people forget you're there," McIlvanney therefore set up four creative writing classes a week, although he by no means sees himself as a teacher.

"What I offer is to act as chairman to the multiple responses within the room. I don't think it should be seen as some high road to amazing works of literature. It can be valuable simply to clarify whether you ought to pursue writing seriously or just continue to write in a private capacity."

"But I think the crucial thing is to establish an atmosphere of acceptability for whatever you write. People in the class know that nobody's going to attack or denigrate their work. It's mutually supportive."

Nobody is obliged to bring writing. Some students have sat in silence for weeks. Others have brought in work by students who can't face the class. The group has considered techniques of Lawrence's poem, a Plater sketch. It has also produced for the charities campaign a booklet of prose and poetry by 19 of the students.

Most of the students in the class come from the English department, and McIlvanney feels they are under particular pressure. "In English they lose the primacy of their own experience. They're ingesting the predigested experience of other people."

"They also run the danger of either being so overwhelmed by being subjected to the masterpieces of English literature they lose all confidence and creep away into a corner, or becoming fraught with examinationitis. Hopefully, the course may give them some capital in the bank, and

strengthen their resolve."

However, McIlvanney is convinced that a writer must have a personal commitment and a compulsion to write, and that if it fails, it isn't strong enough in the first place.

He remembers having a page of poems published in the school magazine when he was in his teens, which earned the caustic comment from his Latin teacher: "Don't worry about it, it's a phase we all go through. You'll get over it."

He doesn't recall any particular encouragement being given to him. But in retrospect he agrees it was unusual that, coming from a working class West coast housing scheme, where writing would generally be considered slightly effeminate, he received no actual discouragement.

"My mother was a great reader. I can remember coming back early from the dancing and finding her sitting there reading the Rubaiyat. It was only later that seemed in any way away from the normal. She didn't force me to write at all, but the climate was clear for writing if you wanted to."

But he still feels a compulsion to justify his writing, he says, coming from a background where people worked with their hands, and the value of what they did was self-evident.

There is no lack of evidence of McIlvanney's abilities. He has been showered with awards since his first novel, *Remedy Is None*, was published in 1966, winning the Geoffrey Faber Memorial Award. Despite his views about butterflies on boards, English departments in universities and colleges throughout the country are crying out for a paperback edition of his finest book, *Docherty*, an epic of industrial Ayrshire life.

His latest book, *Laidlaw*, published in paperback by Coronet, takes the

form of a detective story, with a youth who has brutally raped and murdered a young woman being inexorably hunted down by her father, and a Glasgow mobster, both of whom intend to kill him, and by the police detective, Laidlaw.

"I think you should have as many people reading you as possible, so I took a form which is popular, and tried to do something more than average." The book far transcends its form, examining issues of guilt, compassion and justice.

McIlvanney is in the process of branching out into another medium with *Laidlaw*: he has already rewritten it as a film script, which has greatly interested Sean Connery.

He is now trying to decide whether to stay on at Aberdeen for a second year. He has found it a stimulating experience. "Any education class where the teacher doesn't feel he or she is learning can't be healthy" because it has obliged him to "reconnect with the incipient compulsions of others."

Writing, he explained in his essay *Growing Up In The West*, is a social action, a way not of escaping from people, but involving yourself more deeply with them.

"For anybody who writes, there are periods when you have to lie fallow to rediscover what ideas you want to write about. But one of the dangers of this job is that you can be seduced into thinking that's your work for the year."

But if McIlvanney decides not to return, he has no fears that his absence will blight some aspiring young author's career. Neither does he have any delusions that that career is an easy one.

"You're on your own with it. Like it or not, it's not a recognizable necessity like food out of a supermarket. You either wish to do it badly enough, or you don't."

Take the businessman abroad. The German shines with confidence in his (temporarily interrupted) economic miracle. The Frenchman proudly vindicates (in French) the "Etatist tradition" in Andrew Shonfield's phrase. The Japanese will photograph you signing the contract; while those from Singapore and South Korea will promise to under-cut the Japanese contract next time they come to visit their children who dare not go home to practice the democracy they came here to study.

But the British businessman? He can be found from Frankfurt to Fukuoka bemoaning the idleness of his workers, the vices of the trade unions, and the low level of productivity which destroys his competitiveness (but not his ability to turn a nominal £25,000 salary into a reality of £50,000 by "corporate living").

It would be easy to pursue this unhappy man back to his office and notice that his actions at work rarely fit his glib and tonic words. He knows that he has trade union officials with whom he can normally do a deal, workers who are rarely Luddites and shop stewards who still satisfy the Donovan formula: "more of a lubricant than an irritant." You will rarely find him stupidly financing barristers with briefs to act out the script in the Employment Act, any more than he joined in the hunt before the NIRC between 1971 and 1974.

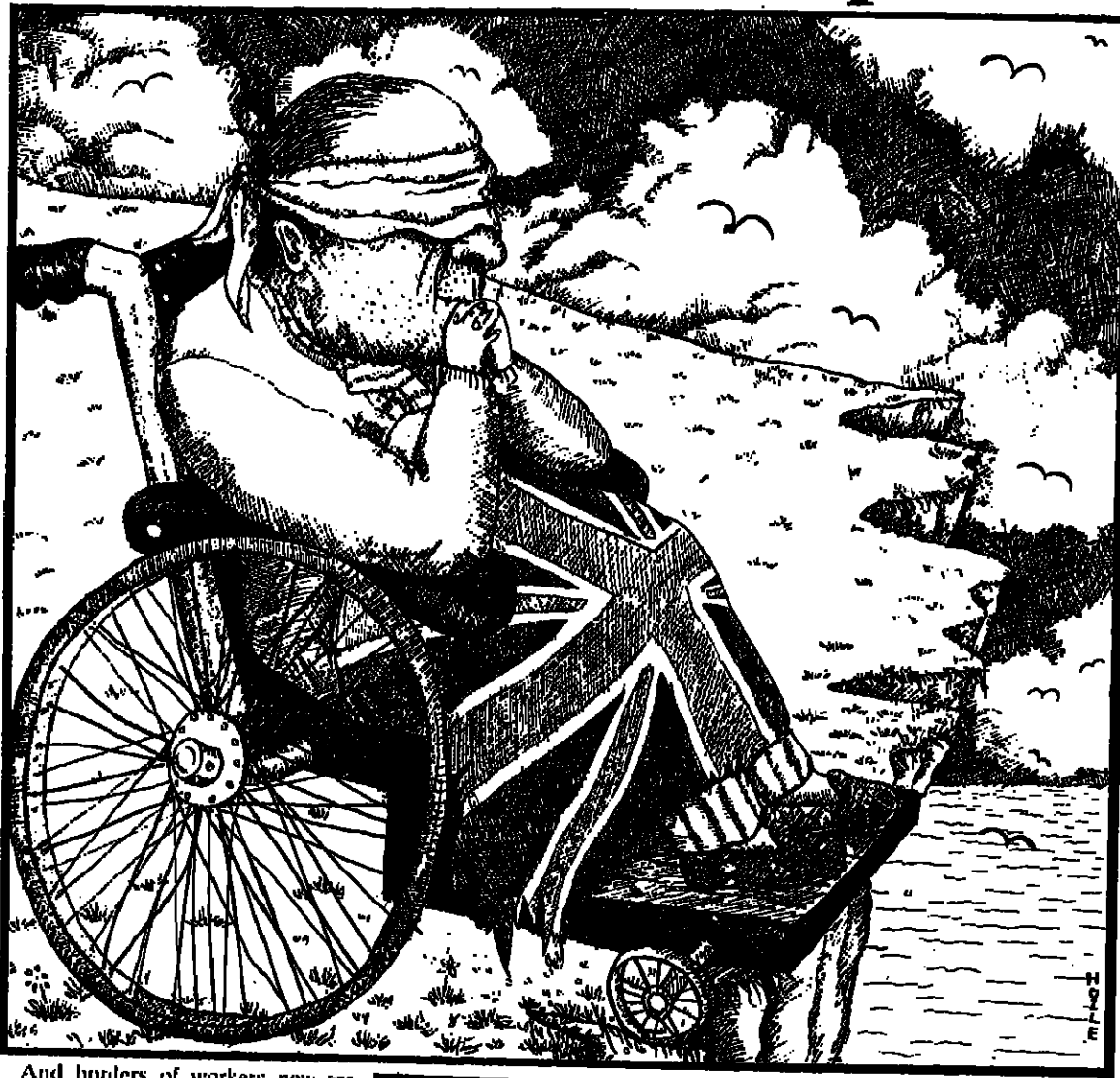
Why then do we have this sort of silly legislation yet again - and more of it if the Colonels of Cheam could only get that fellow Prior to stand up to the workers? Whereas, for all the folkies, it was possible to have some rational debate about industrial relations between 1964 and 1974 - in the last five years that possibility has increasingly receded. Today one has to begin by seeing whether the nature of a "contract of employment" is understood - the "legal fiction" which covers the reality of individual subordination, as Kahn-Freund put it - to see whether the very reason for collective trade unionism is understood (especially among the young, whose education usually does more to obfuscate than to explain).

This is unusually odd, because it is not difficult to put your hands on material illustrating the ways in which our society has become more unequal, less just over the last few years. Even the media allow that to be seen at family viewing time. But the new disintegration of consensus in Britain has provided an opportunity for myth wholly to replace reality in the national consciousness about industrial relations - largely because of a British (especially English) failing. Back home, the businessman experiences our "voluntary" system of collective bargaining as a necessary give-and-take arrangement. He accepts it pragmatically in the orthodox English manner and he accepts the strength of pragmatism.

But he does not know why it is as it is, how it came to be an organic piece of our social history, where it stands in our value system of "pluralism", "corporatism" or "collectivism". These are seen as dotty ideas for dons. Nor does he (compared with his European counterparts) know much about the reasons for other different industrial relations systems. He remembers that someone persuaded him in the 1960s that collective agreements should be "legally binding" because that works in Sweden. And only yesterday he was convinced yet again that the Closed Shop must be made illegal as it was (he was told) in every other civilised country. Above all, although he is a highly political animal, he believes he is not. And he doesn't want "politics" inside the factory. In fact he can turn quite nasty if he finds the Reds at it. This is where the trouble begins in such a profound social crisis as we have now.

The British Disease is a mental paralysis brought on by the easy diagnosis that our trouble is caused by workshy workers and tyrannical trade unions. As for the unions, consensus is irrelevant; the Government's illiterate Green Paper last January painted them as both in the grip of undemocratic leaders and in the control of an irresponsible rank and file. Above all, the "Closed Shop" is perceived as the most concentrated form of evil. No matter that analogous union security arrangements are lawful in many comparable countries (about 12) and in yet other flourishing in practice, albeit illegally. This, the British have been taught to believe, is the core of the cancer.

A state of collapse



And hundreds of workers now are numbered among the faithful. As they fall on their knees entreating the apparently impersonal forces suddenly in control of the market for their labour, they are filled with terror of being raped by the (other man's) strikes and wage demands. That they have learned to know as the cause of the trouble. Back in the good old days (1969) John Goldthorpe and David Lockwood and their colleagues argued persuasively that in our advanced industrial societies "the new consensus" was an inadequate concept for workers who with increasing affluence perceived their position not as one integrated into a "class" but as "consumers". Even so, they warned against the thesis of *embourgeoisement*; the forms of working class action would not die; and if radical politics should disappear, that would be partly because "the political leaders of the working class chose this future for it".



Thirteen years later, the availability of "choices" for such leaders is objectively much more restricted, not least by reason of the spreading of the Disease. In the sample of Goldthorpe et al. not unrepresentative of its day, only 4 per cent of the workers had been unemployed for more than three months. Today far more of their counterparts are weekly made "redundant", and this time their plants may well not reopen. Yet even as they take their "redundancy" payments, they reflect the infection. Many will tell you their misery has been caused by lay-offs about which they sleep on night shifts in Closed Shops and people with tightly knit groups of union bosses, and maybe long-haired students. Try - for just a week - reading any one of the mass circulation papers and watching the mass viewing programmes on television, and see if you can formulate, on that material alone, a more convincing explanation.

The Disease has in the last decade infected to a chronic degree the accepted semantics of social analysis. Did those sociologists who scamped into surveys in the 1960s on "redundant" workers, think what they were about? "Redundant" means "superfluous". Superfluous for whom? For their families or the household income? The analysis made by the Glasgow Media Group of the media's treatment of working class organizations is important less for its unimpeachable proof of "bias" than for its many illustrations of word-control and

part of our illness in clearly feebleness of political mind. The nation has been taught to be terrified of all that stuff. What in 1960 Ralph Miliband made a debateable but challenging case about the sickness of Labourism and the "paralyzing illusions" of its party, few could rise to the invitation offered for debate. He was just put beyond the pale of decent chaps - a gambit at which the English in general, and so ex-pert. Also the Disease has captured a major citadel by the debasement in popular English of the word "Marxist" into a term of abuse. John Griffith was lined up with Bader Meinhoff for daring to inquire into the political role of judges instead of having the conventional sense to stay inside the comfortable world of Rawls and Dworkin. What would they do to Harold Laski today?

It need not have been like this. Look at our newspapers and journals of 50 years ago. Indeed, look at those proffered on any newspaper's stall in a major Italian city. Compare the amount of news and character of the debate in their papers with large circulations. Then look again at the "downmarket" and infects most "up-market" newspapers here. *Mon-dopolio* (produced by the relatively small Socialist Party) carries more political and ideological debate each month on national and international affairs than equivalent British journals in a year; despite the valiant efforts of some writers.

More important, the political party has lost its social role in Britain. In Europe, again Italy for example, the party of Left or Right remains a channel of direct communication and a focal point of self-education. Apart from socialist suburbia or specific industrial or regional groups (like the miners) that is no longer the case in Britain - and that did not happen by any leaders' choice. The Christian Democrat, Communist and Socialist Parties in Italy can at times reach their members without the need of mediation through a journalistic slum.

Paradoxically, the retention of a direct instrumental role by the ideological party can be a force for social stability. Not always: the factions in Northern Ireland illustrate that. But the important role of the Socialists in Italy in meeting the terrorists intellectually, and of the Communists in making the "historic compromise" and later the commitment to "law and order" and efficiency, would have been impossible without the social base of their political organizations. In Britain

working men's clubs or co-operative groups retain few traces of such a role. Even in Sweden, political and trade union social organisation facilitates more readily a fundamental debate. Britain's "Social Contract" was re-interpreted in 1975-1977 back to workers by a confusing mixture of concrete experience and media images. While consumerism battered at the door, parts of the labour movement found they had few resources to put the developments in context even for their members. Indeed, it was - in many ways unfortunately - the trade union wing of the labour movement which sustained ideological nourishment, rather than the political party whose job it ought to be.

Thatcherism had rediscovered ideology for the Conservative Party. It is, of course, a form which is manifestly accelerating the fragmentation of such consensus as we have left. It is open therefore to the easy, and justified, criticism of "destructive extremism". But that description alone feeds upon the symptom of the Disease: the formula "Extremist bad - Moderate good". There must be a strong presumption that social "moderation" and consensus should be supported. But an extreme crisis of the political economy may need an "extreme" analysis and an "extremist" recipe for survival. Instead, the media use the ideologically extremist "monetarism" of this Government to promote the virtues of all they say is "moderate" - from the indiscriminate public exposure of private "conscience" by "social democrats" with nothing else to say to Mr. Woodrow Wyatt's recent visionary plan for all civil servants who withdraw their labour to be made criminally liable for mutiny.

The paucity of ideological analysis combined in Britain with the absence of a direct route to the minds of members for the political party (unless it happens to enjoy the support of a man or transnational corporation owning a newspaper) to create a special weakness. The interests which won victory in the 1975 EEC referendum by £1,481,583 to £133,630 spent by the "anti-Europeans" (what greater semantic victory has there ever been than that phrase?) daily inflate the myth that workers should trust and support "moderates" who are not moderate but shallow. In England above all, psychological aversion therapy has made the "consumer" feel safer with them. All who wish even to understand the extreme challenge of 1990 are lumped in with some "Militant Tendency" or "Socialist Workers' most of whose stuff any ideologically literate Italian could see off in half an hour. But, then, he might well not know the number of bathrooms in Bologna.

To say this is not to call for ignorance of the social facts. On the contrary; that is just what media "moderation" often does. Nor is it a demand that everyone must imitate the "interpenetration of opposites". Wright Mills rejected such "pretentious obscurantism"; but he was no ideological teetotaler. G. D. H. Cole rejected all but his own idiosyncratic version of "the dialectic" but in 1934 he produced the best warning yet that constitutional socialism in Britain depended on "prosperity lasting long enough for it to be won". Since then, ideological debate has been pushed into the corner, where its protagonists feel even more like emigrés than H. M. Hyndman did; and often they succumb to introverted obsessions about the number of Althusers that can balance on the top of a pin. It is hardly their fault.

It is born of a system of thought-management undreamed of in a democracy 30 or even 30 years ago. Yet now, in a collapsing world economic order, in the shade of nuclear extinction, the same society faces the power of transnational capital, an antiquated productive apparatus, smothering class conflict, a time-bomb of racial tension, wonderful yet appalling possibilities of new technologies, and (at this of all times) the imminent paragon of the welfare and educational services on which all but the rich depend.

Britain had the first industrial revolution. Now it may be the first to face a journey travelled by no other human society - through the black hole of collapse for an "advanced" capitalist society. After all, the great "socialist" revolutions have not so far occurred in such societies. Maybe the Marxist precept that our political economy contains the seeds of its own destruction now carries the rider that we can

Continued on page 12



Is Germany seeing the resurgence of a youth movement? Tilman Spengler looks at a new generation's quest for Utopia in our series characterizing the international intellectual scene.

In search of a cause

"*Navigare necesse est, vivere non est necesse*", is one of the many silly proverbs a German pupil would be supposed to have mastered after a few weeks of Latin. The words entered the textbook in Germany's imperial past, when the Reich clung to hopes for a bright colonial future. The outcome of the First World War brought an end to that. Yet the textbook survived; the children of Nazi Germany learned that it was more important to have a navy than to live, and when another war was over and the Reich gone, the Latin masters would reopen their textbooks and declare: "*Navigare necesse est*."

The lack of a colonial past (whatever its merits for the would-be colonized) has left a distinctive mark on the German intellectual scene, both during the Weimar Republic and after the war. Only in very few cases did the frame of intellectual references transcend national boundaries. The hero of a German novel travels inside the country after 1949, perhaps between East and West Germany (very rarely the opposite direction). He or she may venture a journey to Italy but beyond that: *terra quasi incognita*.

Philosophical systems, of course, were a case apart, they embraced the whole world, but this world was anywhere and nowhere; Heidegger's *in der Welt sein* is a case in point (where does his particular philosophy understand?)

When the Third Reich forced Jewish German intellectuals into emigration, many refugees would not adopt the language of their host countries as their new medium - the Frankfurt School with Adorno and Horkheimer is only one example. They would continue working mostly on the problems they had brought with them and try to publish in the language, not to say jargon, they had cultivated before.

One further feature has to be explained before we can turn our attention to the contemporary scene: in postwar Germany, both, I think, in East and West, certain cultural topics were shunned either for their allegedly too close affinity with national socialist ideology or because they would not fit with the publicly ordained sentiment of collective shame. These topics included much of what abroad had always been thought of as typically German: Nietzschean philosophy, for example, a certain cult of the youthful, existentialism (koshier only when imported from France, but popular only for a brief while in the 1950s), sexuality and romanticism.

The understandable fear of a rebirth of irrationalism led to a veneration of authorities (elderly politicians and professors) and systems (the free market economy or Marxism) with a quasi-dogmatic status. The Zeitgeist pre-empted itself as rational, clean and uncompromisingly modern. The more progress, the greater the distance between today and a despicable past, meant it was less attributable to personal biographies and thus - possibly - to shame or guilt.

Nineteen sixty-eight was not the end but the culmination of this process. The students' rebellion in Berlin and Frankfurt replaced some of the old authorities, including some idols of the "old" Left, yet the veneration for systems remained intact. Of course, it was the system which "destroyed us" (*das System macht uns kaputt*) not individuals, for they were, one had learned, replaceable. "Don't bother with biographies, they are all boring."

was one of the most cynical beliefs of those years.

Consequently, a new, less repressive, system had to be created, but with a heavy emphasis on collectivity: you may shed your tears but not in private. Social theory, be it in an orthodox or an enlightened version of Marxism was the royal way to understand what was going on in society, the more abstract, the better.

When Peter Handke, then only a rising star on the literary scene dared in his writings to talk about himself (and how moderate it was then, compared to his later publications) he was severely castigated by Martin Walser for his retreat into subjectivity". In March 1970, *Kursbuch*, the leading intellectual quarterly devoted almost a whole number to a critical evaluation of what was then conceived of as the danger of *die neue Innerlichkeit*, a term signifying both subjectivity and introversion.

The new writing, however, was by this time already on the wall, and in the years to come it became more and more clear that the world view, the political styles and the intellectual preferences of the 1968 generation had overstayed their welcome. The book market switched from yet another exegesis of the theory of surplus value to poetry, social theory withdrew into its private quarters in academia. There, freed from the fetters of political commitment it could celebrate hitherto unsuspected feasts of reunion with other theories: Habermas, to name only the most prominent could team up with Talcott Parsons and Max Weber.

At the same time, we could witness the unprecedented blossoming of academic subjects like ethnology and anthropology, social history (including oral-history projects) and regional studies.

The novel interest in things more or less at hand rather than in the lofty heights of abstraction is clearly visible in the universities, it is also discernible in the ups and downs of publishing houses. In the late 1960s Suhrkamp, the publishers, in Frankfurt clearly domin-

"To recapture the innocence of words doesn't seem to take longer than one generation"

ated the scene with their series "edition Suhrkamp" and "Theorie" which held what amounted to almost a monopoly over the market of new or newly discovered ideas. It was particularly their titles in social theory that set the trend. What Suhrkamp printed today, an avid reader would try to understand tomorrow.

New, this monopoly has been shaken, if not broken. Today the more provocative and more interesting books are being brought out by Syndikat publishers, a young firm located only a stone's throw away from Suhrkamp, and its daughter, Europäische Verlagsgesellschaft. Syndikat was founded by two former Suhrkamp editors, Axel Küppers and Karl Markus Michel in spring 1976 and had the intellectual as well as financial backing of then 50, now 130, authors, most of them university teachers.

Syndikat's main stronghold is in the fields of social history, ethnology and social anthropology. With only a moderate dose of exaggeration it can be said, that it was through the medium of

Syndikat that authors like Michel Leiris, Carlo Ginzburg and even Boris Malinowski have been introduced to the German public.

The growing fame of these authors and the increasing popularity of related topics appear to indicate that the traditional intellectual barriers which isolated academic work in the Federal Republic from what was going on in other European countries have been successfully broken down. Perhaps a colonial past is not necessary, after all, to stimulate inquisitiveness into far-away cultures.

Karl Markus Michel has now left Syndikat to found, together with Hans Magnus Enzensberger and Gaston Salvatore, a new monthly, *Transatlantik*, the very name of which epitomizes the new fashion. In its make-up, *Transatlantik* resembles very much the American New Yorker. In content it is probably a little richer, owing no doubt to the ambiguous benefit of fewer advertisements. The magazine tries to revitalize the tradition of investigative journalism with the emphasis on social analysis.

This switch of interests, the unashamed avowal to be guided by curiosity rather than by theoretical considerations, has not been allowed to pass unchecked. Some critics spoke of another revival of *die Suche nach der blauen Blume* (searching for the blue flower), the well known epitome for a romantic desire to substitute a mysterious utopia for an unpalatable civilization at home. Are we then on the brink of a new *Jugendbewegung*, a new youth movement, comparable to the movement that started around the turn of the century and is now only more international in scope?

Ironically enough, the very term *Jugendbewegung* has returned to the political arena. Only a year ago, most Germans would have probably confused it with *Jugendstil* and would have associated it with little else than an expensive fashion in architecture and interior design. The more historically minded may have remembered the *Bünde*, groups of romantic youths with a preference for short trousers, braids and white socks as well as an uncomfortable liability to be exploited by national socialist policies in the late 1920s and 1930s.

Yet it is the selfsame term that the rebellious youngsters in Zürich have chosen to stand for their political and cultural movement which broke into the open as a vigorous protest against the city council's refusal to part with a comparatively small sum of money for a new and more or less autonomously run youth centre.

From Zürich, the reborn expression has found its way into the equivalent "scenes" of Berlin and Hamburg. There the punks now start to speak of themselves as *die Jugendbewegung*. To recapture the innocence of words doesn't seem to take longer than one generation.

Just how much the new proponents of *Jugendbewegung* do know about their predecessors must remain a very open question. They can't have learned much about it at school. Not only, because school doesn't mean an awful lot to them, but also since modern history, not to speak of contemporary history, has never been a pet subject with German schools. If conditions are anything like they were in my schooldays, which ended in 1966, the rebellious youths will have heard a great deal about Bismarck and very little about Hitler. Only a few of those protesting today have the same educational privileges as their predecessors

Well - I think we have at last found the blue flower!



in 1968. Schools may be irrelevant to the problem with one notable exception: many of the students of 1968 are now teachers, and suddenly finding themselves the targets for the same anti-authoritarian attacks they used to carry out themselves. Oddly enough, their pupils seem to resent authority, even an authority that preaches anti-authoritarianism.

Is there a connexion between the new *Jugendbewegung* and the redirection of intellectual curiosity described above? Certainly not in any direct way. The *Jugendbewegung*'s disdain for all attempts to catch it in whatever social-cultural framework is more than matched by the average intellectual's contempt for a movement which for all practical purposes is speechless and which violates all established rules of sociology by making bad manners, music, and a specific type of body language rather than an elaborate code the chief source of identity.

There are similarities. The most striking may be found in an increasingly popular spirit of irreverence vis-à-vis the established judgements on certain writers, philosophers, political entrepreneurs of Germany's past. Up to only a few years ago, whatever had been produced in the Weimar Republic was classified as either pre-fascist and decadent, pre-fascist and bad taste, outrightly fascist, anti-fascist but decadent, or neither decadent, nor pre-fascist but communist, communist with very little difference from fascist. Brecht had become acceptable, so had Tucholsky, so had Muriel-Luise Fleckner. Their work stood against something that one commonly agreed was bad. But the nuance, the fellow-travellers for one or two stops, the writers whose literary accomplishments would not be matched by their

political awareness or personal courage had fared badly. Gottfried Benn and Hans Fallada, to name but two of them, would be used as objects of demonstration rather than as literary masters in their own right. They had made their peace with the powers that were, that put them into a moral category which no literary merit could redeem.

The Weimar Republic, its intellectual tastes, its literature and art is experiencing reappraisal. The beneficiaries are mainly all those writers and artists who did not fit into the cast iron schemes of political preferences, who were neither heroes nor martyrs and thus forgotten. But there is also a concomitant interest in philosophical schools which only a few years ago were thought to have gone for good. Oswald Spengler, for example has become the object of an increasing number of studies but also the proponents of that unique creation of German metaphysics, *Lebensphilosophie* (philosophy of life), and no great prophetic vision is needed to predict a triumphant return of existentialist philosophy into our seminars and book-shops.

This may be welcomed as a local "hundred flowers" campaign, a merry "anything goes". Yet in some instances one may be allowed to pause briefly and ponder about possible consequences. For it could also happen that what started as a titillating exercise in unconventional modes of thought may engender a certain laxity of standards, an intellectual laziness, which has a negative reverberation: the loss of moral and professional values which had a reason for being.

The author is a researcher in the social sciences at the Max Planck Institute, Starnberg.

Machiavelli's lessons of diplomacy

Inflexibility was the weakness the author of *The Prince* found in the Renaissance rulers he met, says Quentin Skinner

By the time Machiavelli came to record his final verdicts on the rulers and statesmen he had met, he had reached the conclusion that there was one simple yet fundamental lesson which they had all misunderstood, as a result of which they had generally failed in their undertakings, or else had succeeded more by luck than sound political judgement.

The basic weakness they all shared was a fatal inflexibility in the face of changing circumstances.

Cesare Borgia was at all times overweening in his self-confidence; Maximilian was always cautious and over-estimating; Julius II was always impetuous and over-excited.

What they all refused to recognize was that they would have been far more successful if they had sought to accommodate their personalities to the exigencies of the times, instead of trying to reshape their times in the mould of their personalities.

Machiavelli eventually placed this judgment at the very heart of his analysis of political leadership in *The Prince*. However, he first registered the insight much earlier, in the course of his active career as a diplomat. It is clear from his *Legations*, moreover, that the generalization first struck him less as a result of his own reflections than through listening to, and subsequently thinking about, the views of two of the shrewdest politicians with whom he came into contact.

The point was first put to him on the day of Julius II's election to the pontificate. Machiavelli found himself drawn into conversation with Francesco Soderini, cardinal of Volterra and brother of Piero Soderini, the leader (*gonfaloniere*) of Florence's government.

The cardinal assured him that "not for many years has our city had so much to hope for from a new pope as from the present one. But only if you know how to harmonize with the times."

Two years later, Machiavelli met with the same judgement in the course of negotiating with Pandolfo Petrucci, the lord of Siena, whom he was later to mention admiringly in *The Prince* as "a very able man". Machiavelli had been commissioned by the *signoria* to demand the reasons for "all the tricks and intrigues" which had marked Pandolfo's dealings with Florence. Pandolfo responded with an effrontery that evidently impressed Machiavelli very much.

"Wishing to make as few mistakes as possible," he replied, "I conduct my government day by day, and arrange my affairs hour by hour; because the times are more powerful than our brains."

Although Machiavelli's pronouncements on the rulers of his age are in general severely critical, it would be misleading to conclude that he regarded the entire record of contemporary statecraft as nothing more than a history of crimes, follies and misfortunes. At several points in his diplomatic career he was able to watch a political problem being confronted and resolved in a manner that not only commended his unequivocal admiration, but also exercised a clear influence on his own theories of political leadership.

One such moment occurred in 1503, in the course of the protracted battle of the pope, Cesare Borgia and the pope, Machiavelli was fascinated to observe Julius would cope with the dilemma raised by the duke's presence at the papal court. As he reminded the *Ten of War* left for Borgia "is well-known", but this hardly alters the fact that Borgia "has been more helpful to him than anyone else" in securing his election, as a result of which he "has made the duke a number of very large promises".

Machiavelli: fortunes collapsed



The problem seemed insoluble: how could Julius hope to achieve any freedom of action without at the same time violating his solemn pledge?

As Machiavelli quickly discovered, the answer came in two disarmingly simple stages. Before his elevation, Julius was careful to emphasize that, "being a man of great good faith", he was absolutely bound "to stay in contact" with Borgia "in order to keep his word to him". But as soon as he felt secure, he instantly reneged on all his promises. He not only denied the duke his title and troops, but actually had him arrested in the Castel St Angelo. Machiavelli is scarcely able to conceal his astonishment as well as admiration at the *coup*. "See now," he exclaims, "how honourably this pope begins to pay his debts: he simply cancels them by crossing them out." Nor does anyone, he adds significantly, that the papacy has been disgraced; on the contrary, "everybody continues with the same enthusiasm to bless the pope's hands".

On this occasion Machiavelli felt disappointed with Borgia for allowing himself to be ruinously outflanked. As he typically put it, the duke ought never to have supposed "that the words of another are more to be relied on than his own". Nevertheless, Borgia was undoubtedly the ruler whom Machiavelli found it most instructive to observe in action, and on two other occasions he was privileged to watch him confronting a dangerous crisis and surmounting it with a strength and assurance that earned him Machiavelli's complete respect.

The first of these emergencies arose in December 1502, when the people of the Romagna suddenly voiced their outrage at the oppressive methods used by Borgia's lieutenant, Rimiro de Orco, in pacifying the province in the previous year. Admittedly Rimiro had merely been executing the duke's orders, and had done so with conspicuous success, reducing the whole area from chaos to sound government. But his cruelty had stirred up so much hatred that the continuing stability of the province was now in jeopardy. What was Borgia to do?

His solution displayed a terrifying briskness, a quality that Machiavelli mirrors in his account of the episode. Three days later "he was found in the public square, cut into two pieces, where his body still remains, so that the entire populace has been able to see it". "It has simply been the pleasure of the duke," Machiavelli adds, "to show that he can make and unmake men as he wants, according to their deserts".

The other point at which Borgia evoked Machiavelli's rather stunned admiration was in dealing with the military difficulties that developed in the Romagna at about the same time. At first the duke had been obliged to rely on the petty lords of the area for his chief military support. But in the summer of 1502 it became clear that their leaders—especially the Orsini and the Vitelliozzi—were not only untrustworthy but were plotting against him. What should he do? His first move was simply to get rid of them by feigning reconciliation, summoning them to a meeting at Sinigaglia and murdering them en masse.

For once Machiavelli's studied coolness deserts him as he describes the manoeuvre, and he admits to being "lost in wonder at this development". Next, Borgia resolved that in future he ought never to make use of such treacherous allies, but ought instead to raise his own troops.

This policy—almost unheard of at a time when practically every Italian prince fought with hired mercenaries—seems to have struck Machiavelli as "being an exceptionally far-sighted move". He reports with obvious approval that the duke has not only

decided that "one of the foundations of his power" must henceforth be "his own arms", but has started the process of recruitment at an astonishing rate, "having already conducted a review of five hundred men-at-arms and the same number of light cavalry". Switching to his most admiring style, he explains that he is "writing this all the more willingly" because he has come to believe that "anyone who is well-armed, and has his own soldiers, will always find himself in a position of advantage, however things may happen to turn out".

By 1510, after a decade of missions abroad, Machiavelli had made up his mind about most of the statesmen he had met. Only Julius II continued to seem a puzzle to him. On the one hand, the pope's declaration of war on France in 1510 struck Machiavelli as almost insanely irresponsible. It required no imagination to see that "a state of enmity between these two powers" would be "the most terrifying misfortune that could arise" from Florence's point of view. On the other hand, he could not resist hoping that, by sheer impetuosity, Julius might yet prove to be the saviour rather than the scourge of Italy.

At the end of the campaign against Bologna, Machiavelli permitted himself to wonder whether the pope might not "go on to something greater", so that "this time Italy really may find herself delivered from those who have planned to engulf her". Four years later, despite the worsening of the international crisis, he was still trying to fight off his growing fears with the reflection that, "as in the case of Bologna", the pope might yet manage "to carry everyone along with him".

Unfortunately for Machiavelli and for Florence, his fears yielded better hard pressed in the fighting of 1511. Julius reacted by concluding an alliance that changed the entire face of Italy. On October 4 1511 he signed the Holy League with Ferdinand of Spain, thereby winning Spanish military support for the crusade against France. As soon as the new campaigning season opened in 1512, the formidable Spanish infantry marched into Italy.

First they rolled back the French advance, forcing them to evacuate Ravenna, Parma and Bologna, and finally to retreat beyond Milan. Then they turned against Florence. The city had not dared defy the French, and had failed in consequence to declare its support for the pope. Now it found itself paying a costly price for its mistake. On August 27, the Spanish sacked the neighbouring town of Prato, and three days later the Florentines capitulated. The *gonfaloniere* Soderini fled into exile, the Medici re-entered the city, and a few weeks later the republic was dissolved.

Machiavelli's own fortunes collapsed with those of the republican regime. On November 7 he was forthrightly dismissed from his post in the chancery. Three days later he was sentenced to confinement within Florentine territory for a year, the surety being the enormous sum of a thousand florins. Then in February 1513 came the worst blow of all. He was mistakenly suspected of taking part in an abortive conspiracy against the new Medicean government, and after being put to the torture he was condemned to imprisonment and the payment of a heavy fine. As he later complained to the Medici in the dedication to *The Prince*, "Fortune's great and steady malice" had suddenly and viciously struck him down.

The author is professor of political science at the University of Cambridge. This article from Machiavelli, a new volume in the Oxford University Press series *Past Masters* will be published on May 21, price £1.25.

Saving for the future

Ernest Rudd puts forward a scheme for meeting spending cuts that, he argues, could improve standards

Whether we like it or not, the Government intends to make rapid and drastic cuts in current expenditure on universities. The command paper on the Government's expenditure plans (*Cmnd. 8175*) provided, at constant prices, £712m for universities' current expenditure in the Exchequer's financial year 1981-82, compared with £752m in 1980-81. Although the University Grants Committee, Association of University Teachers and the Committee of Vice Chancellors and Principals are trying to persuade the Government to cut less, one has to admit that this Government has not shown itself greatly open to persuasion. As Cornford pointed out in 1908 "conviction has never yet been produced by an appeal to reason... you must address your arguments to prejudice". But at present all the prejudice is against the universities.

No one can yet know how these cuts will affect the individual universities. This will depend on decisions still to be made by various people, including the UGC, the various universities, and potential students overseas who are still deciding whether or not to bring us their money. One thing, however, is clear. If cuts of this size are made over a short period it will be virtually impossible to avert serious and lasting damage to the universities, whereas if smaller cuts are made or the same cuts are spread over a longer period it will be possible greatly to reduce the damage.

In this context a proposal I put forward recently, for other reasons, in the *THES* January 23 takes on a new significance. This is that our graduates should no longer be accepted for postgraduate research immediately on graduation but would instead only be accepted after a substantial gap in which they would do the preparatory reading, exploration and planning for their research, while in employment—graduates who can get research studentships at present would be relatively unlikely to be voluntarily unemployed. Briefly, the advantages of this scheme are:

- It would give students the opportunity to discover whether they would not really prefer a job elsewhere to continuing in the university;
- By eliminating those graduates who are least strongly motivated towards research it would raise the success rates in research degrees;
- It would reduce the number of research students—there is strong evidence, especially from the Department of Employment's survey of the careers of 1970 graduates, that the universities have been overproducing PhDs for many years;
- It cannot be good for the country to have so many of those graduates who seem the brightest—those whose qualities earn them premium salaries when they are employed outside the universities—so concentrated into the narrow band of jobs to which the PhD mainly leads.
- The selection of research students would be based upon better evidence of their promise in research. Any pub-

lisher who chose potential authors on their degree class, giving them contracts and money without discovering if they could even write a short story, would soon be bankrupt.

This proposal now offers another very substantial advantage that it would save a substantial sum from the education and science vote so that, without any overall change in the size of that vote, the cuts in university expenditure could be made less sharp and spread over a longer period.

How much would be saved? I have been a civil servant who had to put together civil estimates for expenditure on postgraduates (and who incidentally, *mea culpa*, was responsible for some of the fallacious arguments that have resulted in the over-expansion of postgraduate study) and so I am well aware of the impossibility of accurately estimating such figures when outside the government services. But all that are needed here are figures for the magnitude of the saving to show whether it is even worth considering as a contribution towards preventing the current crisis becoming a catastrophe.

There were some 33,000 full time home postgraduate students in the universities, last October, of whom 23,000 were new students, and 10,000 were in their second or subsequent years. Assuming that a substantial proportion of research students do not complete a full three years, these figures seem to me to suggest an annual entry into postgraduate research of around 7,000 full-time home students. There is little error in also assuming that they are all supported from public funds, and it is reasonable to guess that they cost an average of about £2,000 a year per head, excluding fees, but including travel grants, equipment grants etc. and at prices consistent with those used in the government's expenditure estimates.

If this proposal were introduced from next October there would be virtually no new research studentships in 1981 or 1982 and the savings on these assumptions would be very roughly £7m in 1981-82 (April March), £20 million in 1982-83 and £22m in 1983-84. Research studentships could start to be awarded again in 1983 but far fewer would be given.

This is not a vast saving. Only a seventh of the savings the Government will probably enforce in the current year; but it could nevertheless make an appreciable contribution to reducing the extent to which the expenditure cuts do irreparable harm. It could especially in 1983 and later, make a useful contribution to any package of measures to allow the universities the time that is needed to bring about constructive adaptation and change.

And it would have the enormous advantage of resulting from a change that needs to be made instead of from an attempt merely to save money.

Most academic staff will strongly dislike the idea of having no new home research students for two years but they should ask themselves whether they would prefer redundancies.

The author is a reader in sociology at the University of Essex.

A state of collapse

continued from page 10

emerge into even a tolerable society only if we consciously transplant and tend the seeds, like an anthropologist smart enough to spot a forthcoming "jump" in the species (as the new "revisionists": Darwinians have it) in time to chill in the genetic engineer to stop a "jump" backwaters.

Meanwhile the British Disease spreads. Recent events in the Labour Party are presented as, though they really are only a depressing argument about 40-30-30. Instead of reflecting a small but encouraging renewal of serious interest in ideology, Bertrand Russell in his patient advocacy of nuclear disarmament 20 years ago

wrote about the "new splendours, new beauties and new nobilities" attainable by the human spirit. Such splendours can be attained only by those whose minds and imaginations range freely and boldly, above all ideological "fences". Those who capitulate to the "End of Ideology" are our enemies now as they were his then. Among them, those who capitulate daily in their craft of education are the most guilty, for they betray their trust by helping to infect with the British Disease the next generation.

Lord Wedderburn is Cassel Professor of Law at the London School of Economics and Political Science.

Events

EXHIBITIONS
Closing today, University of London Institute of Education, Bedford Way Gallery 2. Elements, paintings and drawings by Polly Thompson.

Until May 20, Department of Architecture, Kingston Polytechnic. Architecture at Kingston.

Until May 22, Middleton Hall, University of Hull. University Art Collection, including pictures presented by Professor A. G. Dickens.

Until May 26, Centre for Creative Photography, York. The Landscape Season, with photographs by Hamish Fulton, Peter Miller and Roger Palmer.

Until May 27, West Surrey College of Art and Design, Farnham, Surrey. Greek archaic hand-woven dresses designed and made in the 1930s by Katerina Iliadi. Also woven and embroidered work selected by Marianne Siraub.

Until May 29, Library Concours, University of East Anglia. The English House: exhibition of photographs and drawings of the work of over 60 architects.

Until May 31, Library, University of Essex. *Signum Freud: Forty Years After*. Until May 31, Library, University of Art in Education: art and design in every aspect of life.

Until June 7, Herfordshire College of Art and Design, St Albans. *Conservation and Architecture in Herfordshire*: exhibition of photographs.

From May 19 until June 12, University of London Institute of Education, Bedford Way Gallery. Tony Dyson: etchings, Carole Hodgson: drawings.

Until June 14, Salisbury Centre for Visual Arts, University of Salisbury. *The American Sculpture*: new work by Leonard Baskin, Helaine Blumenfeld, Helen Fessenden and Dante Leonelli.

Until June 28, The Octagon, Fitzwilliam Museum, Cambridge. Twentieth-century English portraits and figure drawings. From May 23 until July 5, Museum of Modern Art, Oxford. *Peter Lanyon: Drawings and Graphic Work*. Also, May 23 until July 19, Leon Kossoff: *Paintings from a Decade*.

Until September, Boardroom, William Lee Group, 234/248 Old Street, London. Exhibition of work by third-year printmaking students of the Royal College of Art. **EVENTS:**

Until Saturday May 16, Gulbenkian Studio, Newcastle-upon-Tyne. The Theatre Company in Peter Fennell's *The Boy's Own Story*.

Until Saturday May 17, Theatre, University of Bradford. Bahamuti drama group of Soweto.

Until Saturday May 23, Arts Theatre, Cambridge. *Smash!*, a new play by Jack Rosenthal.

Saturday, May 16, The Cathedral, Bury St Edmunds. St Edmundsbury Bach Choir and Orchestra present Haydn's *The Creation*.

Saturday May 16, Great Hall, Goldsmiths College, London. Goldsmiths' Choir and Symphony Orchestra, conductor Arthur Davison. Programme of various composers.

Saturday May 16, Centre for the Arts, University of Aston. The Midland Youth Orchestra, conductor James Langley. Silver Jubilee Concert.

Sunday May 17, Victoria and Albert Museum, London. *A Banquet of Music for the Harpsichord*.

Tuesday May 19, Department of Architecture, Polytechnic of the South Bank. Symposium: *Nineteenth-century Speculative Housing*.

Tuesday May 19 until Saturday May 23, Centre for the Arts, University of Aston. Studio company presents *Marat* by Peter Weiss.

Wednesday May 20, City Library, Norwich. Lunchtime poetry reading by Hugo Williams.

Wednesday May 20 until Saturday May 23, Arts Centre, University of Stirling. Students of the Royal Scottish Academy of Music and Drama present Noel Coward's *Tonight at Eight*.

Friday May 22, Dance Studio, Crewe and Alsager College of Higher Education. World premiere of *Dorothy's Progress* by Les Bagley.

Friday May 22 and Saturday May 23, Old Town Hall Arts Centre, Hemel Hempstead. *Mr Shaw in Search of Love*, devised by Hugh Hunt.

Saturday May 23, Trinity College Chapel, Cambridge. The Cambridge Players play works by Handel, Bach and Tippett.

Sunday May 24, Victoria and Albert Museum, London. *Music of the Pleasure Gardens*, presented by the Curnel Music Group.

Monday May 25, Arts Centre, University of Stirling. Trevor Pinnock and the English Concert. Programme includes works by Handel, Thomas Arne, Charles Avison and Mozart.

Monday May 25 until Saturday May 30, Arts Theatre, Cambridge. Guildhall Opera present *The Marriage of Figaro*.

Thursday May 28, Museum of London at the Barbican. Film: *Father Brown* (1954).

Thursday May 28 until Sunday May 31, Theatre, University of Bradford. Drama group presents Abee's *Who's Afraid of Virginia Woolf?*

Tuesday June 9, Arts Centre, University of Stirling. Actors from the Traverse Theatre and the Scottish National Orchestra perform Tom Stoppard's *Every Good Boy Deserves Favour*.

Oxford ETC puts Mervyn Peake's final *Titus* novel on the stage



The extraordinarily theatrical properties of Mervyn Peake's writing are being exploited by Oxford University's Experimental Theatre Club this week.

The ETC is presenting the first stage adaptation of Peake's last and arguably greatest novel, *Titus Alone*, and there are aspirations for the show to go to Edinburgh.

Authors' widows are often said to be prickly about revivings of their husbands' material, but it appears that Mervyn Peake has been very enthusiastic about this project. At the start of the week the director and cast were allowing themselves a cautious optimism about their reactions.

Reproduced above are details from illustrations by Mervyn Peake himself which were unpublished during his lifetime, and which Mrs Peake has allowed the ETC to use for publicity.

The adaptation is the work of Justin Gilbert, a student at Merton College and *Titus Alone* was originally the third part of a trilogy that included *Titus Groan* and *Gormengast*. The production runs at the Oxford Playhouse today at 8.00pm and tomorrow at 4.00pm.

Hull's best come to London

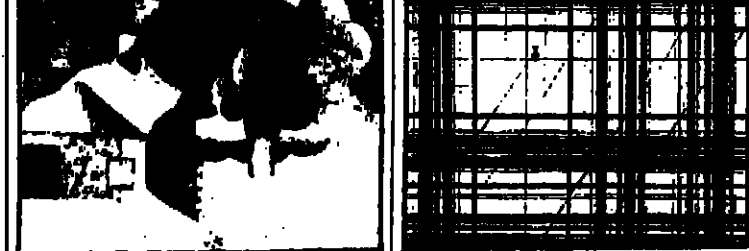
Two of the best productions from this year's National Student Drama Festival at Hull are going to London's Mayfair Theatre on May 25 for a single day.

They are Hull University's own entry, *A Portrait of Sarah Siddons* by Caroline Pugh, and Robert Patrick's *Kennedy's Children*, performed by Westfield College, London University. This won the Best Company Acting Award, and four acting nominations,

while Hull's production carried off the Best Award and Best Actress Award.

Last year, which was the 25th anniversary of the festival, half a dozen productions transferred from Southampton to the Old Vic for brief runs, but the level of interest by a wider public was generally poor.

Performances at the Mayfair are at 2.30 and 7.30pm. Ticket prices are £1 and £2, for each double bill.



There are 60 works of art from the Roland Collection at the Dixon Gallery in the University of London Institute of Education. The exhibition continues until June 10, Monday to Friday 9.30 to 4.30 and Saturday 9.30 to noon. Above is Jean Metzinger's *Landscape*.



One of the many bold and powerful items in the exhibition of sculpture by Philip King at the Hayward Gallery on the South Bank. It is open until June 14, 10.00 to 6.00 Monday to Saturday and 12.00 to 6.00 on Sunday.

Investing in the capital

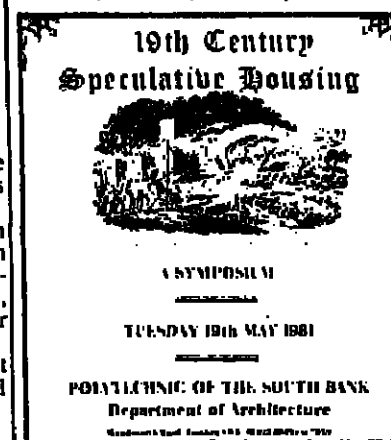
Calling all members of the new administration at County Hall. Your local poly, the South Bank, is planning to hold a housing symposium on Tuesday. True, we are hardly building as many homes in the capital these days as did the Thomas Cubitts of the last century, but surely there are some lessons to be learnt from the past.

The aim of the one-day affair is to consider "the use and re-use of the nineteenth-century speculative house". It will start by looking at the background to this considerable stock of housing—the building methods, finance and design.

The symposium will also deal with the problems of conservation and rehabilitation, and consider the case for urban clearance alone, as did the nineteenth-century lines. It is aimed at councillors and officials, employees of housing associations and building societies, as well as anybody else involved with the environment.

Speakers include Hermione Hobhouse, secretary of the Victorian Society; Victor Belcher, assistant editor of the *Survey of London*; and Tony Chapman, former deputy divisional head of the GLC's modernization and rehabilitation division.

The programme starts at 9.30 in the poly's architecture department in Wandsworth Road. The fee is £20 and bookings may be made through Keith Francis (928 8989, ext 7154).



The last few weeks have seen several times witnessed the phenomenon of Shakespeare scholars called in by the media to interpolate exclamations of "Bosh!" and "Pish!" while eccentrics expound wild claims about their favoured alternative to the Stratford player as author of the plays. The authorship of just one play, *The Book of Sir Thomas More*, has also been at issue. Traditionally this play has been attributed to a collaboration by several of Shakespeare's contemporaries, with one key scene of about 150 lines probably added afterwards by the Bard himself. However, a lecturer at Basingstoke Technical College, Thomas Merriam, has recently claimed that by a computer analysis of the play's word patterns he has sufficient evidence that the play is "definitely 90 per cent by Shakespeare." On hearing this the academic response has been that "Bosh!" and "Pish!" would be too good for him.

Inspired by the renewed interest in the play a student group from Bristol, the Poor Players, decided to mount a production in Bristol and the Young Vic, London. They have successfully proved that, whoever the author, *Sir Thomas More* deserves to be considered as drama rather than just as a textual problem. Directed by Gregory Doran, theirs is a fine, well-staged production with an intelligently cautious approach to the play's comedy and particularly good performances from Peter Runney, as the mild-mannered merry Sir Thomas, and Samantha Bond, as rioting-leader Doll Williamson. Another opportunity to see the production will be at Holy Trinity, Stratford, August 3 to 8, during the International Shakespeare Congress.

As in the theatre, so in the museum, there must be an element of showmanship. So said Dr David Wilson, director of the British Museum, in a lecture held yesterday

appropriately enough at the Lyttelton Theatre. It was the fourth in the annual series under the broad head, "The Universal Theatre: The British Museum and its Public." Originally, the series was founded to choose themes relating archaeology to the theatre.

One of the main functions of the museum, said Dr Wilson, was to provide entertainment. There had to be showmanship and presentation that would provide a window on the world and stimulate the senses. During the years the museum had evolved from the idea of an institution for the gentlemanly curious to the great popular spectacle it was today.

Before becoming director of the museum, Dr Wilson was professor of medieval archaeology at London University, and joint head of the Department of Scandinavian Studies at UCL.



Dr David Wilson: "a window"

Could it be that the beleaguered World Service of the BBC is identifying with the arts in Britain? The service has just started a programme entitled *Meridian*, which aims "to reflect the British arts scene at large," as well as to cover the work of visiting artists from abroad. The first of the half-hour programmes was broadcast on May 2; there are three separate editions each week, with each edition going on the air three times.

The programme's editor, John Pimman, says of it: "The emphasis will be on topicality and, wherever possible, the creative artist or performer will be invited to talk about their work in depth."

The ubiquitous Michael Billington, theatre critic of *The Guardian*, will be one of the regular voices, as will Humphrey Carpenter, Peter Clayton, Sarah Dunant, Jim Ffley and Alexander Walker.

The appearance of *Meridian* means the exit of *Theatre Call* and *The Book Programme* from World Service schedules.

The History Workshop Journal has just published a highly readable autobiography of an Oxford car worker, *The Politics of the Production Line*. It tells the story of one Arthur Exell, born in 1911 the son of a South Wales railwayman, who travelled to Oxford in 1928 and found work there. He went on to work for Lord Nuffield's Cowley car empire, Morris Motors, for the best part of 45 years. The publishers claim that the book gives the most detailed account to date of working conditions and practices in the pre-war car industry, and it is hard to quibble with that. The backdrop of his life consists of the fight for unionization in the 1930s, and of the political issues beyond the factory gates: the housing problem, the pressed steel strike of 1934, the Spanish Civil War. There is a foreword by Bob Wright, assistant general secretary of the AUEW.

Since the emergence of the Graeae Theatre Company, the prospect of a troupe of actors with major disabilities does not seem quite so novel. Nonetheless, this International Year of the Disabled has thrown up a disappointingly small number of similar initiatives. One such venture can be seen at the City Lit Theatre in Stukely Street, London on June 18. It is a production of improvised mime by deaf technical and commercial students attending North London College. The show will be the culmination of the weekly drama sessions which they have been attending.

Alan Franks and Lynne Truss

BOOKS

'For Britain, see Wales'

Rebirth of a Nation: Wales 1880-1980
by Kenneth O. Morgan
Clarendon Press: Oxford University Press, £15.00
ISBN 0 19 821736 6

by Raymond Williams

What if the veterans of a century ago were permitted to see... the transformation of the Rhonda valley from a sleepy hollow into the most active and thriving community in Great Britain or the world? That little exercise in time travel was printed in the *Western Mail* on the first day of the twentieth century. It is still, in its chosen terms, no fantasy. By the standards of capitalist production and export which are now being so vigorously revived as the criteria of "an active and thriving community", the Rhonda and the other Welsh coal valleys were then success stories to gladden the heart. In Dr Morgan's estimate, the products of South Wales then constituted "about a third of the coal exports of the world". Indeed his prose at that point captures the authentic lilt:

The domestic heating of eastern and central Europe, the railways of France, Italy, Brazil and Argentina, above all the oceanic steam-driven carrying fleet of the world, all rested to a great degree on the expanding production and aggressive marketing of Welsh coal.

An oceanic moment indeed. And if the Rhonda, since then, has been widely used in alternative images — of a devastated, derelict and depressed economy, or of an intelligent and educated militancy — still the connections must predominate. All three are more than images; they are readings and interpretations of a complex and volatile history. The remarkable revival of Welsh historical studies in recent years is too little known in England. Even where it is known it is easily pigeon-holed as "regional": that word the English still use for everything beyond their confidently named Home Counties. Yet "regional" begs all the questions. Industrial South Wales — built on iron, coal, steel and exports — is a central case of that selective version of the production and creation of wealth as the essential ground of a society, which is now — to be sure with different products, but that is the selectivity — being revived from almost every political position. Virtually every model of the growth of a society can be tested there, on historical and contemporary grounds.

The national revival "expanding production and aggressive marketing", after which, but only after which, we get on to social relations right and start providing "the things we all want"? The answer comes not only in the driven labour, the industrial illnesses, the mortality of those valleys, but, as decisively, in the liberal nonconformist culture which those who were appropriating the surplus so solidly created. It is now often said that England never had a fully bourgeois culture; that it turned aside to empire and gentrification. Liberal Wales, at the turn of the century, described an "affluent region", in general admirably and in general admirably by Dr Morgan, will serve as this alternative cultural universe. We can see the sort of world fashioned by the coal owners, shippers, merchants, academics, bankers, lawyers, ministers and bureaucrats of that "affluent region"; even follow it to London, with Lloyd George.

It is full of solid building and cultural establishment; confident, and self-respecting; in its own ways socially progressive. It is worth a very long look, because it is an excellent example of a civilised culture, of the kind that came from the English. Fabianism, too, doing good on the profits of an expanding capitalist economy. Its loyal agents, still ideologically powerful in a residual liberalism and social democ-



The Brecon Beacons: "To the south, now, are the dwindling remains of that explosive development of the iron and coal trade. To the north are the depopulated but marginally surviving pastoral hills".

they have never understood what they see as a betrayal by the very people they were administering and civilizing: the self-organizing and differently oriented working people on whom the equation of administered culture and capitalist progress depended. They explain and explain and explain again what a desirable world this could be. The people seem to listen attentively, in the institutions built for the explanations, but then — the buggers — they mitch and demarche, go to the pub and the football or (initially for the equation) go on strike. This kind of struggle between chapel and union, and within both, in industrial South Wales, is one of the key cultural struggles, for all its local specificities, in modern industrial society anywhere.

But then is growth to be found in the alternative perspective: the building of a labour movement: the organized working class coming through to its destiny? There is rich Welsh material for that also. The Welsh working-class movement of the interwar years is as conscious, as heroic and as intelligent as can be found anywhere. Is not this then a model? To thought and feeling it still often is, but there are two qualifications. First that though it had its roots in the turbulent period of industrial expansion, it came to flower only in the succeeding period of economic depression, with coal exports declining and nearly half a million Welsh people having to leave their country. It was nevertheless still supposed that planned production — planned socialist production — would as such bring back prosperity, as still, in its usual form, was a gross misunderstanding of the nature of industrial production for trade: the precise form which had been inherited and which was now, by a necessary logic, beginning to abandon the valleys it had disembowelled, grown respectable on, could now leave its sloughs and crowded terraces for more profitable trade elsewhere. Nothing could renew that extractable wealth, and industrial production for trade, in a developing and overruling world market, could in its pursuit of a successful economy only abandon large sections of the society this was supposed to support. What happened then in South Wales is now happening widely in England, and Labourism — the attempted parliamentary direction of a capitalist mode of production — has as little of practical use to say in the one country as in the other. Moreover, though in the second qualification: the character of the culture that came through as Labour gained political power in

Wales: a test case, in all its light and shade, of the orthodox notions of the public interest and representation of the people.

There is then a third model, for which Wales and Dr Morgan provide abundant evidence. This is the idea of growth through a culture and a community, supported but not directed by an economy. Of course all the periods overlap, but if the peak of Liberalism — an enlightened bourgeois society — comes around 1900, and the peak of the labour movement in the twenties and thirties, it had learned much from previous experiences, of both Liberalism and Labourism, but it drew also, as each of those in different ways had drawn, on older Welsh resources of social thought and feeling. Were not the Welsh, in their own language, the Cymry, the fellow countrymen or comrades, the sons and daughters of cultural community? Was not Welsh social feeling audibly different from the repressed, anxious, class-ridden culture of England? Indeed, as some of the Liberals had been saying, was not Wales already classless, all its gentry and social climbers having conveniently emigrated? This perspective, which bore some fruit in social thought and imaginative writing, encountered a dreadful reality on several occasions but humiliated in the campaign and result of the devolution referendum. What the sentiment could not admit was now there in cold figures: that at the very root of these ideas, that of a common and distinctive Welshness, too much had happened or had always been wrongly assumed. What was taken as a grounding reality had to be seen as at best (though none the less for that) an aspiration. The historic divisions of North and South Wales, less noticed divisions of the "Principality" and the Marches; the dramatic contrast between industrial and pastoral Wales; the changing fortunes, now receptive crisis, of the native and the adopted dominant language; all these but also the quite evident class divisions, of an orthodox kind, among the Welsh and the increasingly numerous immigrant English, revealed what had long been there: not an inheritance but a dividing issue. As the identity of the English, of Englishness, moves now into comparable crisis, so many old nationalisms within a dominant and reckless internationalism, the case of Wales and of Welshness, again, for all its specificities, is a study conveniently close to hand. That old joke of the encyclopedia entry — "For Wales,

see England" — can now be put the other way: "For Britain, see Wales".

Dr Morgan's most useful history, the first of six planned volumes of the history of Wales, can then be especially recommended to English readers, and as much more than a regional study. It is admirably detailed and explanatory, over a sufficiently long period, and thus quickly takes the reader beyond the selected images of Welshness which have become common currency in England and which some Welsh cultural exports have done much to encourage. The dominant perception has been organized around certain powerful identifying elements: miners, choral singing, chapels, rugby, rhetoric, radicalism. These have all been active in modern Wales, but it is interesting to go through the history and see how many of them are, at least in origin, English implantations. The supposed national character is not entirely myth, but much of it, in its best known forms, has been shaped and reshaped by the long pressures of a more powerful neighbouring economy and culture.

Indeed that was what was wrong with some early phases of nationalism: that it supposed Welshness to be in effect genetic or, more plausibly, linguistic, when the actual cultural formation had been a prolonged interaction between always diverse native elements and the both dominant and alternative effects of an occupying power. By Dr Morgan's long and intricate history had diverse potentials: for a liberal bourgeoisie; for a militant working class; for new kinds of clergy; for a popular culture, based in the old language and its remarkable literature. All four, in his century, have developed but also confronted each other. Neither relative prosperity nor absolute economic depression brought them more than temporarily together.

This is not a complaint. The mode of theory, still active in Wales as in England, is becoming increasingly relevant. But at the same time there can be no simple celebration of the rebirth of anything so coherent as a nation. The contemporary importance of Wales, for the Welsh but also for its neighbours, now encountering comparable problems and internal struggles, is that because its phases of dislocation were at once early and dramatic there has been some genuinely contemporary reflection and thinking — often resilient and constructive; as often baffled and bitter — of a kind which is becoming necessary in people once much prouder, more confident and more settled. The central problem is the realistic discovery of a

working, non-mythical identity and community against and beyond the pressures of an international economy which has no real use for either, and which is even having to renege on its only positive proposition — that all people are producers and consumers — the "all" now drastically revised to "some" or even "a few", with the rest, in that now decisive term, "redundant".

This is the real force behind the contemporary revival of Welsh historical studies. It is a remarkable enough history to attract both professional and general attention, but the distinguishing quality of some of the best recent work is that the full historical detail is being sought as a contribution to understanding a contemporary impasse. This is especially true of the work of Gwyn A. Williams and his colleagues: the essays *A People and a Proletariat*, edited by David Smith (1980) are an excellent introduction to this. Dr Morgan's perspective, but then also evidently his brief, is rather different. He has given us the one-volume history of a century, from which the general reader can start and to which all students of the history and the culture will need, for its scope and fullness, to refer. It is in some ways a very Welsh history, in its quite integral inclusion of poetry and novels with the politics and the economics. But he does not need to be told that it is around his central concept, that of "nation" in the sense of national identity and rebirth, that the current Welsh argument, in history and in politics, moves and at times rages. One obvious centre of this argument will now be his evaluation of that Liberal Wales which underlies his perspective. I have indicated my own different evaluation of it, but like thousands of other readers I shall remain in his debt for the clarity of its exposition.

What alternative general concepts are there? Two can be briefly mentioned. The first, which made an impression but is now (perhaps unjustly) fading, is that of the "internal colony" (as in M. Hechter: *Internal Colonialism*, 1975). In some respects this is still illuminating, as an indicator of the character of cultural and marginally political nationalism within external domination. It is in any case notably better than the orthodox English concept of "region". But the second concept, "uneven development", is now more to the point. To stand on the Brecon Beacons and look south and then north is to see, on the ground and very readily in the history, the reality of this apparent abstraction. To the south, now, are the dwindling remains of that explosive development of the iron and coal trade. To the north are the depopulated but marginally surviving pastoral hills. It can be seen as simultaneous overdevelopment and underdevelopment, within a turn of the head. But the reality now is that both are old, and both marginal.

I looked these two ways as a boy, growing up in that country, and that sense of an uneasy border — an internal border, even more important than the political border with England — has since shaped most of my work. While the nation was being reborn, in Welsh nationalism, liberalism or the proletariat being formed, in those valleys to the south, I saw Welshness after Welshness, and neither was quite mine nor that of my own people: we were held and pulled between them. It seemed a very local experience, but the sense I now get of much of Wales, and of region after region of what was once England, is clearer in these terms than in any others I know. It is an internal division generated by a quite objective dislocation. It is the pressure of an imposed, confident, reckless unevenness: the capitalist version of the nature of human production. Its consequences in Wales can now connect us to others, in a common history that simply has to be changed.

Raymond Williams is professor of drama at the University of Cambridge.

BOOKS

In search of the poetry for the age

Time and Mind in Wordsworth's Poetry

by Jeffrey Baker
Wayne State University Press, £9.35
distributed by Transatlantic Book Service
ISBN 0 8143 1655 7
Wordsworth and the Poetry of Epitaphs
by D.D. Devlin
Macmillan, £12.00
ISBN 0 333 21783 7

Wordsworth's concern with permanence sprang partly out of his own Puritan ethic: if he were to spend so much time withdrawn from the world, and then to leave nothing behind him, how could he justify his existence? Permanence in itself was not enough, however, since it was also important that what he left should remain alive. The most lasting things, such as rocks and stones, were thus a reassuring model for a poet.

This dilemma led to a good deal of thought about time, and about the human mind in relation to time. Seen in these terms the whole of human existence could be viewed as a long struggle between the mind and transient life. The mind's activities, seemingly controlled by the body's successive sensations in time, were subject to the decay of those sensations: yet they could, through the workings of memory, conquer time and, through certain workings of the unconscious, escape from its grip.

Jeffrey Baker's approach to these issues is sensible and straightforward. He traces three levels of time in Wordsworth's poetry: ordinary, strict clock time, ticking steadily away in minute regularity; Newtonian time, relating to the heavens and the planets; and the variable flow of time in human consciousness, with all its variations and unpredictable linkings. For the last, he takes as his chief guides Virginia Woolf, another explorer of unusual states of consciousness, and (since the subject leads towards religious questions) William James, who examined mystical experience with a salutary scepticism. While not shying off questions relating to abnormal states of consciousness, he is anxious to keep the discussion at a common-sense level.

The discussion begins with a chapter on ordered and disordered time, showing how these themes interweave in some of Wordsworth's most striking poetry (references to clocks, for instance, are usually significant) and how disordered time seems to be closely related to disordered consciousness. He then moves to consider the status of the mind itself in Wordsworth's poetry, noting how traces of the influence of

associationism in his thought are frequently checked by references to the powers of the mind which suggest a different philosophy.

A good chapter entitled "Idleness and Deliberate Holiday" puts together a number of passages which show how, against the urgings of a more sober judgment, Wordsworth was frequently forced to confess the value — even the moral value — of "vacant" states of mind, times of "thoughtlessness" and so on, as ways of empathizing with a similarly ambiguous "thoughtlessness" in nature. The final chapters include discussions of places which were important to him in terms of time: ruined Christian shrines of one kind and another figure in the poetry surprisingly often.

I may be his concern with transience that causes Professor Baker to take up so forthright a position in relation to the perpetual argument among Wordsworthians as to the two versions of *The Prelude*. Supporters of the 1805 version urge the sense of mental life which is conveyed by its movement, those of the 1850 version point to countless verbal revisions which improve the text. Professor Baker is firmly in the second camp: in defending his position he draws attention to an apparent contradiction in the opinions of de Selincourt, who at one point in the introduction to his edition of *The Prelude* remarked "No one would doubt that the 1850 version is a better composition than the A text", yet also, within twenty pages, recorded Wordsworth's statement that he himself valued his poetry "according to the powers of mind which it presupposed in the writer and excited in the reader", claiming that the work which most triumphantly stands that test belongs to the years 1798 to 1807. De Selincourt, Baker suggests, did not understand "the magnitude of the superiority of the 1850 version", or he would not have been guilty of such an extraordinary self-contradiction.

It might be truer to say that de Selincourt so revealed himself as a subtle critic. Professor Baker looks for simple critical judgments, simple criteria of what is "better". But de Selincourt's comments demonstrate that critical judgments can be made in different ways. It is not inconsistent to enjoy one version of a poem for the superiority of the powers that it manifests and excites through the running line of its syntax and rhythm, while acknowledging the more complicated virtues of later, meditative revisions; and this is precisely the double view that needs to be cultivated for any consideration of Wordsworth's poetry. It is surely time for critics to begin thinking in larger terms, instead of continuing what must become an in-

creasingly sterile argument.

The other drawback of the book as a discussion of Wordsworth's poetry is that it is almost entirely concerned with his mental powers. One cannot fully understand his achievement as a whole, however, without understanding his phrase about the necessary "dialogues between mind and heart" — without appreciating that is, the intensity of his concern for the affections. Whenever Professor Baker enters the realm of "the heart" he tends to fumble and misread. He thinks the behaviour of Margaret in *The Ruined Cottage*, as she spends her days hoping and waiting for her husband's return, falls implicitly under moral condemnation by Wordsworth, as an indulgence in fantasy life on her part. But this is to ignore the nature of grief as Wordsworth perceived it. Grief was not a luxury which one indulged in; it was a fact of existence: once it seized a person its grip was irresistible. In "Michael" similarly the hero's great fault according to this critic was to have verbalized the covenant that he made with his son. "Had he simply let him place the first stone without comment the symbolic nature of the act would have stood a better chance of coming home to the boy." But this is more like a literary criticism leading upon its own theories of symbol than an account of the way real people actually behave. A covenant with a young lad is not likely to be the more effective for being silent or implicit. Again, since the philosophy of "Tintern Abbey" cannot, we learn, be taken seriously, it may be classified as a beautiful and highly sophisticated example of an engaging and vitalizing human phenomenon — the enthusiast's brag. Because the dominant role of the human affections is not taken seriously, the poem is read in distorted terms — which is a pity, since the significance of the emotions in time was even more important to Wordsworth than that of the mind.

D.D. Devlin's book, *Wordsworth and the Poetry of Epitaphs*, is also about permanence. Wordsworth's interest in epitaphs was natural enough. The poet's desire to leave behind some writing that will survive the disappearance of his speaking self is reflected in the universal longing to be remembered in some way, even if that is no more than the writing on a stone that will survive the disintegration of one's mortal remains.

The title gives little sense of the book's range, however, since Dr Devlin homes in on the epitaph from several angles, showing how it provided a natural point of focus for serious consideration of Wordsworth's poetry. It is surely time for critics to begin thinking in larger terms, instead of continuing what must become an in-



Benjamin Haydon's portrait of Wordsworth, 1842.

the eighteenth century. If Wordsworth hoped to find a universal readership, that desire was certainly thwarted: one need turn only to the memories of the Westmoreland countrymen who knew him to establish that fact. What he did do was to change the emphasis where poetry was becoming increasingly a preserve for the fashionable middle class and find new ways of catching the ear of the thoughtful middle class. The book also shows how often the question of the audience becomes an issue somewhere in the course of a poem — most notably perhaps in the opening to "Peter Bell".

But then what kind of a poem was adequate to the age? Wordsworth asked himself the question repeatedly. Mr Devlin collects a variety of statements on the subject, often connected

with Wordsworth's own accounts of his difficulties in rendering his deepest emotions. The truest poetry might be simple silence; he admired the depth of emotion in his brother John, "the silent poet". Or, more practically, the function of poetic language might be to "uphold, and feed, and leave in quiet, like the power of gravitation or the air we breathe" — but in that case what critic could ever adequately appreciate it?

And what kind of subject matter should the poet choose? According to Johnson (an omnipresent figure in these pages, as he was in Wordsworth's thinking about poetry) "just representations of general nature". But in Wordsworth's time it was coming to be realized that the pleasing homogeneity of nature presupposed in that phrase was less obvious than had previously been thought: still less easy was it to believe that the mind in its ideal state would evenly align itself with such a homogeneity. Most significantly of all, Wordsworth was coming to believe that if such an alignment existed anywhere, it was in those who spent most time in receptive solitude: another paradox for a poet trying to produce poetry with universal appeal.

These three problems point to the centrality of the epitaph in Wordsworth's thinking. Following the interest of Johnson (who also devoted an essay to the subject, reprinted here) he took the discussion further. The epitaph comes near to being an exemplum of true poetry. It speaks unobtrusively to everyone, and is published freely; its language is of the commonest, and best contemplated by a silent spectator; its subject is of universal concern, yet it also relies for its ultimate life upon the imagination of the reader. An epitaph, almost obscured by weeds, of an infant who was born on one day and died the next need only record those facts to achieve its effect; yet that effect will rely almost entirely upon the quality of human imagination that the reader brings to it. The value of the book lies partly in its enhancing of significant statements by bringing them together. The extraordinary (and vulnerable) humility of Wordsworth's language requires this kind of ministrations. Professor Baker, in turn, shows how his concern with the mind's true place in nature, carrying Wordsworth to the far reaches of imaginative speculation, gives depth to what might at first sight appear the most commonplace statements and images.

John Beer

John Beer is a fellow of Peterhouse, Cambridge. His books include *Wordsworth and the Human Heart* and *"Wordsworth in Time"*.

Jane Austen and the crisis of the gentry

Jane Austen: Structure and Social Vision
by David Monaghan
Macmillan, £12.00
ISBN 0 333 27110 6

Jane Austen's "Sir Charles Grandison"
edited by Brian Southam
Clarendon Press: Oxford University Press, £7.95
ISBN 0 19 812637 9

"You could not shock her", admitted Austen, "more than she shocks me". It made him most uncomfortable to see "an English spinster of the middle-class describe the amorous effects of brass": he thought, so unselfconsciously, "the economic basis of society".

The surprise at Jane Austen's perspicacity about money dates from the thirties, when left-wingers like Austen delighted, we have been told, to cite *Mansfield Park* as the unwitting prelude to *Das Kapital*. The interest of David Monaghan's brisk re-examination of the conservative imagination in Jane Austen's fiction lies then not so much in his thesis that in the course of the nineteenth century, the conflict of values which Jane Austen describes, turned into a struggle for power be-

tween land and trade, as in the precision with which he pinpoints the exact social orientation of her novels, and explains how this conditioned her unflinching view of the shocking events that were about to happen.

She was explicit about money because she did not in fact belong to the middle class, but to the socially unequipped gentry, and Professor Monaghan shows how her niche among the "lesser landlords" allowed her to regard the pretensions of snobbish aristocrats like Catherine de Bourgh and of arrivistes like John and Isabella Thorpe with impartial contempt. It is the landowning gentry who provide the moral leadership in the novels, in each of which Monaghan sees the Tory paternalism of Edmund Burke tested and reaffirmed, as the disinterestedness of the leisure class resists the corroding bourgeois ethic. The shadow of 1789 may fall across their estates, but unlike their French counterparts, Jane Austen's landowners save their chateaux, if not by playing cricket with their retainers, then by the "polite performance" in social rituals of the feudal "ideal of concern for others". This is an interpretation which places Austen in a tradition of moral retrenchment that goes back to Johnson's *Penshurst*; and it reverses the

argument, expressed by critics such as Lionel Trilling, that there is implicit unreason in the way that she presents "the quiet thing", stillness and leisure. To support this reversal, Monaghan deploys the researches of the social historians G.E. Mingay and Harold Perkin; and he quotes the latter telling when he observes how in Austen's world leisure was never equated with idleness: "it was the ideal at which the whole society aimed". Thus *Pride and Prejudice* is perfect because the marriage of Darcy and Elizabeth enacts the accommodation of the aristocracy and gentry; and a chapter on *Mansfield Park* turns into a eulogy of Fanny Price, whose still heart restores equilibrium to the turning Regency world. Monaghan's plain way with history is clarifying, but it ignores or ironies out the complexities of those moments when, as Margaret Drabble has remarked of *Sanditon*, "the spirit of the age was pulling her relentlessly on" and "we see her yearning to follow".

The core of Professor Monaghan's book seems to be an old-fashioned determinism. The "artistic falling off" of Persuasion, for instance, is evidence that the old order "is finally falling apart". This is the kind of tough talking at which Christopher Hill excels, and

here there is something of the same bracing effrontery. Less happy is the more modest analysis of structure. Since each of the novels is plotted around the dances and dinners of the county, we are apprised that these function symbolically as initiation ceremonies for the heroines' induction into the ethic of social concern. The trouble with symbolic interpretations of such "rituals" (as numerous aptures of Mrs Danvers's party will testify), is that the symbolism is as old as *The Symposium* and painfully obvious. It requires no special acumen to grasp that when at *Mansfield* Buddley solemnly enters with the tea-urn, he "buttresses Fanny's value system". These are the rituals of every life, and to assimilate them to "value systems" may seem both gratuitous and reductive.

The bluntness of this book will appeal to students, but they should be warned that it is neither strictly "structuralist" nor sufficiently "social". Professor Monaghan is too much impressed by careful wealth to consider where here of the fact that the owner of *Mansfield Park* is what Raymond Williams has termed "a great West Indian", a slave proprietor. The method employed may owe something to

Lawrence Stone, but the underlying assumptions are too often those of the reverents of "the age of candlelight", Arthur Bryant or Philip Guedalla.

If Jane Austen were really as single-minded as Professor Monaghan believes, then she would have written the play *Sir Charles Grandison*, which was unearthed in 1977 among her family's papers. This "fierce abridgement" of Richardson's pious novel accedes the business of dances, abductions and fainting-fits to hysterical farce. The solution to the literary teaser is trailed by Lord David Cecil however, in his foreword to this first transcription, when he notes that "Jane Austen was only one member of a family of authors". Just as the newly discovered Mozart always turns out to have been dictated by Leopold, so here the Austen family tradition that the play was the work of the seven-year-old niece Anna, though clearly a blind, may not be so wrong. Certainly it is in Jane's own humours that the crudity of the humour suggests to me the "social vision" of the hoisterous brother James.

Richard Wilson

Richard Wilson is lecturer in English at the University of Lancaster.

Warren E. C. Wacker Magnesium and Man

Magnesium and Man provides a comprehensive survey of magnesium as a biochemical agent in human metabolism and disease. The first part of the book introduces techniques of measurement as well as the role of magnesium in normal biochemistry and physiology. The remainder discusses magnesium squarely in the context of human disease: neonatal deficiency, thyroid disease, kidney disease, malignant osteolytic disease, alcoholism, and cirrhosis.

Commonwealth Fund, February 1981, £10.50

Harvard University Press
126 Buckingham Palace Road, London SW1W 9SD.

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BOOKS

Synthetic chemicals

Industrial Organic Chemicals in Perspective
by Harold A. Wittcoff and Bryan G. Reuben

Part 1: Raw Materials and Manufacture
Wiley, £19.20
ISBN 0 471 03811 3

Part 2: Technology, Formulation and Use
Wiley, £27.00
ISBN 0 471 05780 0

A young housewife is in her kitchen washing up after breakfast. She is washing "hydrogenated vegetable oil" off a "nonsick" frying pan with a "synthetic detergent" in a "polyethylene" bowl using a "cellulose" sponge. She is standing on a "polyvinyl chloride" tiled floor and her working surface is a "laminate". Her kitchen cupboards are coated with an "alkyl resin", the electric plugs are "urea-formaldehyde resin" and the food storage boxes from the refrigerator are "polystyrene".

The refrigerator itself uses "chlorofluorocarbon" as its refrigerant and the door is sealed with "butyl rubber". She is wearing an "acetate" blouse over which she has an "acrylic" fibre jumper. Her skin is "polyester". Her lights are "polyamide". She is planning her family using the "pill" and recently cured a deep septic cut with an "antibiotic". Her kitchen and clothes are brightly coloured with "synthetic dyes" and she is continually using "polypropylene" plastic bags. She and her family have enough to eat because the farmers use "synthetic fertilizers" to nourish their crops and both "herbicides" and "insecticides" to protect them.

Although most graduate chemists have some vague ideas of where the common plastics and fibres come from, very little probing is necessary to show that their knowledge of the chemical industry is sketchy indeed. Twenty-five years ago a considerable proportion of a chemistry student's time was taken up with lectures on natural products and a less, but still

substantial amount of time, was devoted to synthetic products like dye-stuffs and plastics. Nowadays, the growth of academic chemistry has been so enormous that these "relevant" aspects of chemistry have been completely squeezed out of most undergraduate courses.

At the same time the chemical industry has been growing and the penetration of the home by products of the chemical industry has been increasing. The problem of coping with the ever-increasing amount of knowledge is not made easier by the increasing intellectual difficulty of some of the material. We are faced with the old adage of "learning more and more about less and less". The arrival of *Industrial Organic Chemistry in Perspective* is therefore particularly appropriate, for there is a very real need for readable books giving up-to-date accounts of industrial chemistry.

Somehow university chemistry departments have got to find time and opportunity to give the students some feeling for the industry in which many of them will work. University teachers are at the present time a much criticized community, but by and large they do know what they are talking about when they lecture. Since they do not know about the developments in industry, they are often particularly reluctant to include industrial chemistry in their lectures. Wittcoff and Reuben's book will give them something on which to base their knowledge.

The compounds described in these two volumes are included because they are useful, be they a fibre to weave into cloth, a drug to combat disease, or a perfume to make a person more attractive. The importance of a compound in these books is not to be measured by its chemical significance but by its value on application. Thus, chemistry is given a new dimension in the form of economics.

Chapter one of volume one introduces the place of the chemical industry in a modern economy and chapter six (volume one), returns to its economic and social impact with particular attention to the future. Chapter one of volume

two returns to the economic and social aspects with the title of "Who buys chemicals". The general layout adopted by the authors is to describe the "heavy" side of the industry in volume one (raw materials and manufacture) and to describe the production of finished products (plastics, fibres, detergents, pharmaceuticals, dyes, and so on) in volume two. The two volumes are very much "one book" and one wonders why the publishers divided it.

The great problem in writing a book like this, is that two authors can never have sufficient knowledge to cover such a vast ground. The result is that the treatment is uneven, and quite trivial mistakes in structural formulae have escaped checking. The only way this could have been avoided would be to have each chapter checked by industrial chemists who work in the field in question. Fortunately, these errors are "technical" and do little to undermine the value of the book.

In general, students will not use this book to look up the structures of complex organic molecules; there are plenty of excellent textbooks. It is to be hoped that students will use these two volumes to acquire an understanding of how and where some of the host of products of the chemical industry come from. As well as enjoying the benefits of modern technology, students of chemistry should learn to think of the origin of their clothes, their food, the bright colours of their home and their good health, and realize how different the world would be if there was no chemical industry. Wittcoff and Reuben's books will give them a good start in their study.

Although the books are expensive, I do most strongly recommend that they should be available to all students reading chemistry at tertiary level.

J. M. Tedder

Professor The Lord Tedder is John Head of the department of chemistry at the University of St Andrews.

Roles of natural products

Biological Chemistry: the molecular approach to biological systems
by K. E. Suckling and C. J. Suckling
Cambridge University Press, £25.00 and £9.95
ISBN 0 521 22852 2 and 29678 1

Attitudes of chemists and biochemists throughout the nineteenth and twentieth centuries towards the chemicals which occur in living systems have usually differed and these differences still exist albeit perhaps to a lesser degree today.

The fact that a substance existed naturally has always been sufficient encouragement for the organic chemist to regard it as important and worthy of study. It is usually considered essential that such substances should be isolated in pure crystalline form, their structures accurately established and confirmed by synthesis. Whereas organic chemists have tended to examine a wide range of unrelated biological materials often with little regard for their biochemical roles, the biochemist endeavours to identify the important biochemical reactions and to examine them regardless of the difficulties of purification and structural elucidation of individual metabolites.

This latter approach has paid handsome dividends in recent years and although it would be unfair to underestimate the substantial contribution made to biochemistry by generations of natural product chemists, the main contribution of the chemist has probably resided in his providing basic chemical knowledge and techniques for the purification and identification of compounds.

The general structure of this book, which does not profess to be a comprehensive account of biological chemistry, goes some way to accepting the latter premise. The early and largest part of the book is mainly

concerned with some of the more important basic reactions of organic chemistry using biochemical or biochemical reactions and reaction sequences as an illustrative background for the chemistry.

Such combinations include (a) addition reactions to polarized double bonds such as in carboxylic, sulphonic and phosphoric acid derivatives illustrated by peptide hydrolysis, nucleoside phosphorylation and polyphosphorylation and hydrolysis of nucleotides including effects of metal ions and their importance in selected enzyme systems; (b) addition to aldehydes or ketones as in Claisen and related reactions illustrated by coenzyme A condensations, porphyrin synthesis, *de novo* biosynthesis of purine nucleotides, pyridoxal phosphate reactions, thiamine pyrophosphate function with chemical analogues and mention of specific enzymes; (c) carbon-carbon double bond formation and reactions with reference to fumarase, ammonia lyase and isoprenoid biosynthesis including the use of radioactive labelling techniques; (d) aliphatic and aromatic substitution reactions including biological methylation, substitution at glycosidic carbon atoms, free radical substitution and examples from porphyrin and alkaloid biosynthesis and nucleotide interconversion reactions; (e) oxidation-reduction reactions illustrated by nicotinamide derivatives and flavins; (f) metal ions with special reference to Fe, Co, Zn and their role in appropriate coenzyme-enzyme systems.

The latter half of the book is somewhat more biochemical and includes brief accounts of enzyme purification procedures, assays and reaction mechanisms, multi-enzyme systems and allosteric effects, a chapter on biological membranes, and a final chapter devoted to miscellaneous

commercial chemicals including drugs and agricultural chemicals. In addition, the book is liberally sprinkled with problems to which answers are provided in an appendix; each chapter is provided with a useful reading list, though mainly pre-1978, and there is also a modest subject index.

The book is written in a style sometimes reminiscent of Open University texts with frequent appeals to the reader, and the long chatty prose coupled with smallish print makes this approach occasionally irritating. On the whole, and with these minor reservations, the book is, however, well written with many clearly drawn formulae and few errors, though presented on an unattractive cream coloured paper.

The authors have set themselves a difficult task, namely to provide a book which will be of immediate interest to both chemists and biochemists. Such a book is, of course, in danger of appealing to neither customer. The present book, however, may escape such a fate and indeed the authors are to be praised for their brave and original attempt to cover an interdisciplinary area between two such large and important subjects.

Some of the material discussed is inevitably out of date, but this is to be expected in areas which are currently undergoing such rapid growth. Nevertheless, the book contains a mine of interesting information and comment. Whether or not it will eventually prove to have wide appeal for chemists and biochemists, they would both be better for the reading of it.

G. Shaw

G. Shaw is professor of organic chemistry at the University of Bradford.

BOOKS

Ways of bonding

Chemical Structure and Bonding
by Roger L. DeCock and Harry B. Gray
Benjamin-Cummings: Addison-Wesley, £8.50
ISBN 0 8053 1310 4

A 500-page book on chemical structure and bonding which sells for £8.50 in hard covers, written by established authors, must clearly be looked at seriously as a possible recommended text for appropriate university courses. The Benjamin-Cummings publishing house has apparently found a way out of the seemingly inevitable cost spiral of recent years without any reduction in typographical standard, and all students and authors must wish it well.

For any undergraduate textbook the authors must judge what part of the frontiers of knowledge they call upon for their pedagogical use. The choice is particularly critical in any subject that has a sound mathematical basis because concepts must be judged both by their descriptive and quantitative values. I have to say at the outset that the authors' choice would not always be my own.

From the preface to this book we read that one of the motives for its writing was to enhance the status of molecular orbital theory by relating it closely to the experimental technique of photoelectron spectroscopy. However, a phrase like "photoelectron spectroscopy is evidence for the validity of molecular orbital theory" in itself means only that molecular orbital theory is reasonably good for interpreting photoelectron spectra. To take the phrase further: molecular orbital theory is a good approach to chemical bonding (for example, it explains molecular geometries, why CH₄ is stable but CH₃ is not, and so on) requires more justification. To some extent this justification is contained within the examples given in the book, but I think the authors could have given more attention to this point.

The mathematical demands made on the reader are not high but they are rather uneven. For example, the Bohr theory of the hydrogen atom is given in detail but when the Schrödinger treatment is reached we read " suffice it to say that the Schrödinger equation for the hydrogen atom can be solved exactly" and what follows is a statement of the wave functions and energies. No attempt has been made to show how the quantum numbers arise from boundary conditions on the angular and radial variables, nor how the nodal properties of the wave functions connect with the quantum numbers.

As another contrast, neither the variation theorem nor perturbation theory is explicitly discussed, although both are implicitly used in the derivation of molecular orbital wave functions, whereas spin-orbit coupling is covered both for atomic and molecular states.

There are three ways of arriving at the mathematical form of molecular orbitals: by symmetry, by the use of empirical Hamiltonians or, *ab initio*, by an attempted exact solution of some one-electron Schrödinger equation. The book relies mainly on symmetry, although only four pages are devoted to the description of symmetry elements and operations, and groups or representations are not discussed. Hückel theory, the archetype of empirical theories, is not discussed at all and I failed to find the term "*ab initio*" or any of its accompanies like "self-consistent-field".

The authors' tools for deriving the wave functions and energies of molecular orbitals are therefore rather sparse. For homonuclear diatomics, one can get away with elementary symmetry arguments and some *ad hoc* statements about s-p mixing. By the time one gets to BH₃ or NH₃, I personally find this approach unconvincing because there is no way of proving the degeneracy of the molecular orbitals. Likewise for octahedral symmetries there is no simple way of proving the degeneracy

of the t_2 orbitals, a key factor in understanding the properties of transition metal complexes; and tetrahedral complexes are a hopeless case. In fact, the authors do prove the equivalence of octahedral t_2 orbitals by calculating overlap integrals between d orbitals and symmetry-adapted ligand orbitals, and this takes three pages of analysis. With a better introduction to symmetry, I believe their task would have been lighter.

The chapter dealing with transition metal complexes is very wide-ranging, covering the hard-soft ligand concept, octahedral and π -complexes and metal-metal bonding. Most of the analysis is couched in molecular orbital terms and I found it a strange choice to make no mention of the simple ligand field model (d orbital splitting in the field of the ligands) but to include, and use, the angular overlap model which requires rather messy algebra to derive the necessary overlap integrals.

The book is completed by a chapter on bonding in solids and liquids which covers the main types of solid structure as well as hydrogen bonding and semiconductors. The account is descriptive rather than analytical (for example, the London energy is stated but not proved to be proportional to r^{-7}), but the authors have gathered their material together very well, so that, for example, the boiling point of water is discussed alongside the structure of ice.

There are questions and problems at the end of each chapter which point the reader to the most important aspects of the text. The coverage is excellent and I can strongly recommend them to both setters and takers of examinations.

I regret that I found the book disappointing. It is a valiant attempt to cover a wide range of bonding types within descriptive orbital theory, which for me was not sufficiently rigorous to be convincing.

J.N. Murrell

J. N. Murrell is professor of chemistry at the University of Sussex.

Working with polymers

Polymer Materials: an introduction for technologists and scientists
by Christopher Hall
Macmillan, £14.00 and £6.50
ISBN 0 333 28907 2 and 08 0

Contemporary Polymer Chemistry
by Harry R. Allcock and Frederick W. Lampe
Prentice-Hall, £21.40
ISBN 0 13 170258 0

These two texts set out to cover all polymer science at about the level of a single term university course. Hall is directed at students of materials science or engineering, whereas Allcock and Lampe attempt to satisfy those studying the whole gamut from engineering to biochemistry. Hall is actually more successful in his limited aim, skipping quickly through an elementary account of the chemistry and physics of polymers and concentrating on the materials science. Allcock and Lampe attempt a much wider coverage but with less success. Their book is excellent in parts but some sections are very weak and the whole would be too much for anyone without a good knowledge of chemistry.

After briefly dealing with structure and morphology, Hall discusses mechanical and thermal properties of polymers. Here he only just touches on rubber elasticity which most polymer science texts treat at length in order to develop the molecular theory. Instead he treats the properties of more importance to the user of plastics; and there is a long discussion of viscoelasticity and sections on fracture, impact strength, wear and friction. The next chapter on electrical and optical properties covers dielectric constants, breakdown, absorption spectra, refractive index and transparency.

The chapter on chemical properties is similarly a brief, practically oriented, summary of permeability and chemical resistance. As one of the most important problems in polymer

technology at the moment is that of fire resistance of polymers in building and furnishing and as this subject is poorly understood and rarely gets mentioned in texts, Hall does give this the attention it deserves.

The final chapter is a brief survey of the major groups of commercial polymers, their compounding and processing. Allowing that there is not much room for in-depth treatment in a 200-page text, this is a good up-to-date survey of polymers from the point of view of the materials user.

The first section of Allcock and Kempe (of Pennsylvania State University) is largely a survey of polymer synthesis. Rather unusually for a polymer text this reads very much like a traditional organic chemistry text with an "A" reacts with B to make C" format. Other polymer texts tend to concentrate on the mechanism of reaction and on industrial synthesis rather than how the polymer might actually be made in the laboratory. Allcock and Kempe, however, also include brief details of the bench preparation of most of the materials they work on polyphosphazene polymers, and these receive generous treatment in a short chapter on inorganic polymers.

Following this is a section on the thermodynamics and kinetics of polymerization. Although written with greater clarity and depth than in most comprehensive texts, the arguments are completely restricted to single-phase polymerizations to low degrees of conversion, that is, to the ideal case. Thus, many practically important effects are ignored, such as those arising from the increasing viscosity of the solution and precipitation of the polymer. Emulsion and Ziegler-Natta polymerizations do not even get a mention in this section, although they are far more practically important than single-phase free-radical polymerizations.

The next section covers physical

characterization starting with molecular weight determination and solution thermodynamics. The chapters on molecular weight measurement are a good blend of theory and practice, and the section on gel permeation chromatography is excellent.

The first 400 pages up to this point are generally very well put together and would constitute a good course on polymer chemistry for chemistry students. The next 150 pages set out to cover the whole of polymer physics and technology, reading an impossible task. Most topics must be treated so briefly that they may seem trivial to students with a background in materials science and incomprehensible to those with a knowledge only of chemistry. The chapter on chain conformations and molecular rotation starts well but peters out before really lacking rubber elasticity or the effects on properties. The chapter on X-ray diffraction spends much of the time talking about diffraction from helices, which is of particular interest for proteins and nucleic acids but is rather out of place here. I found confusing their use of the term "microcrystalline" for crystalline polymers. The crystals are indeed small but there is no real need to imply any more fundamental difference from other crystals.

Allcock and Lampe point out that a large number of chemists who leave university find themselves working on polymers but are unprepared to do so. Their book is not a course in industrial polymer chemistry but it would be a good basis for a "new" polymer chemistry course for chemists. Hall succeeds in his aim of providing an introduction for engineers who will have to work with polymers.

Paul D. Calvert

Paul D. Calvert is lecturer in the department of polymer science at the school of chemistry and molecular sciences, University of Sussex.

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BOOKS

A simple electrophilic substitution

Aromatic Nitration
by K. Schofield
Cambridge University Press, £27.50
ISBN 0 521 23362 3

The study of aromatic nitration has been important in the development of the theory of organic chemistry since at least the 1920s when such work led to the electronic theory of substituent effects. More recently the reaction has been important for the examples it has provided of diffusion control and, over the past ten years, of ipso-attack; that is, attack by an electrophile at a position in an aromatic ring bearing a substituent.

Probably all those interested in the reaction will be familiar with the earlier book *Nitration and Aromatic Reactivity* by Hoggett, Moodie, Penton and Schofield. Since its appearance in 1971, it has been generally accepted as the standard work on the subject. However, the developments in recent years have made a new edition desirable and, in essence, that is what Professor Schofield has now provided, although under a slightly different title.

Those familiar with the earlier work will recognize a number of the para-

graphs in *Aromatic Nitration* together with some longer sections but much of the material has been rewritten and a great deal of new material added. The number of pages has been increased by 50% and the print size has been reduced so that the effective increase in the text is very considerable.

The form of the book is much as before. The earlier chapters deal with the different reagents and solvents used for aromatic nitration and the later chapters with the reactivity of different types of aromatic compounds. One of the main changes is the addition of a long chapter on ipso-attack. It used to be thought that such reactions led merely to the possible displacement of the substituent at the point of attack but recent work has shown that many other subsequent reactions can occur. In this way, a number of the curious side-reactions that sometimes accompany aromatic nitration can now be explained and some anomalous product compositions understood. The extensive recent work in this area is comprehensively reviewed.

Other areas now discussed in detail include heterogeneous nitration, with special reference to the work of Rys on

macroscopic diffusion control, and questions concerning the life-time of intermediates with reference to mechanisms involving pre-association. New topics discussed in less detail include the methods for obtaining standard rates of nitration for a range of aromatic compounds under the same conditions and the possibility of reaction through radical cations. Dr R. B. Moodie, one of the authors of the earlier text, has contributed a chapter on N-nitration and the nitramine rearrangement.

The main emphasis of the book is on the understanding of the facts of aromatic nitration in terms of the detailed mechanism of the reaction. Professor Schofield, Dr Moodie and their co-workers at Exeter University have contributed much to this area and so the book is an authoritative account of the subject. Such an account is particularly helpful at the present time, for the reaction presents a number of complex mechanistic problems on which a summary of the relevant results is not easily obtained.

As might be expected, the work at Exeter on microscopic diffusion control is admirably summarized but those working in the field will appreciate also

the measured judgements provided on such topics as reaction through radical cations, the mechanism of nitration in acetic anhydride, and the difficulties of extrapolating reaction rates to standard conditions.

The author has made no attempt to avoid difficult topics but has set out clearly the strengths and weaknesses of our present understanding of the subject in a way that should encourage further work. Other readers will find it helpful as a work of reference, for a large amount of material is set out concisely with separate indexes for subjects and compounds.

The book is well produced and will clearly take the place of the earlier volume as the standard work in this field. Its main value will be to those carrying out research in aromatic nitration but it deserves to be read more widely for it shows the fascinating complexity often present in a reaction that is usually considered to be the classic example of a simple straightforward electrophilic substitution.

J. H. Ridd

J. H. Ridd is professor of chemistry at University College London.

Transfer of electrons

Electron Transfer Reactions
by R. D. Cannon
Butterworth, £32.00
ISBN 0 408 10646 8

This scholarly work has been written with the care and precision of someone well in touch with his subject. The book (351 pages) is mainly concerned with the mechanisms of electron-transfer reactions between metal ions in solution, the closely related phenomena of electron exchange between atoms or molecules in the gaseous phase (first 46 pages), and electron transfer in the solid state (final 16 pages).

The first of these subjects (metal ions in solution) spans the traditional disciplines of inorganic and physical chemistry, whereas the other two are usually considered as aspects of physics. Future interest may well lie with biochemical systems, which are touched on only briefly. In his preface Dr Cannon regards the omission of oxidation-reduction reactions of non-metals; and also electrochemical reactions, which are however covered elsewhere. He has kept strictly to the areas which interest him and about which he is most informed to write.

The main preoccupation is therefore with reactions between two metal ions in solution and all related questions. Other events may accompany and add detail to the prime act and are of additional interest. There are, however, many examples of reactions such as that occurring between aquated ions of Fe(2+) and Fe(3+) which are in essence simple.

The asterisk in the latter case indicates radioactive labelling of the Fe(3+), the transfer of which to the Fe(2+) state provides the means of monitoring the reaction. Questions which arise are the precise way in which electrons are transferred between such reactants, what factors determine the rate, and over what distances electron transfer can occur. The question of simultaneous or near-simultaneous transfer of two electrons between metal ions which prefer such a course is also considered.

Historically, the subject first aroused interest in the late 1940s. It became a part of the so-called renaissance in inorganic chemistry of the 1950s and 1960s, and it is the inorganic chemists who have since pursued this area with most intensity. The subject forms one of four main categories of inorganic reaction mechanisms. No book on this scale has yet been devoted to the subject, and for this reason alone the present volume is likely to be welcomed. Reading the text it is also quite clear that one person, Henry Taube of

Stanford University, has over the years contributed a great number of landmark papers in this area.

Moreover, this is a book which one might predict will still find wide usage in another ten years. The timing is good. Activity in the inorganic area at least may well have peaked, so that the time is ripe for an authoritative text and for taking stock. Not everyone will welcome the fairly high theoretical content, but such readers will be able to move to the more descriptive sections without any undue deprivation.

Who is the book aimed at? I would suggest more the postgraduate student, and certainly those who teach the subject. No practising chemist is surely worth his or her salt without some knowledge and awareness of reaction mechanisms, and the same may be said of university and polytechnic chemistry courses. Also, chemists and biochemists alike who are interested in the rapidly developing bio-inorganic area and the question of electron transport involving metalloproteins will find this a more than useful background text. In this context one might add that electron transfer is crucial to a fuller understanding of respiration, photosynthesis, nitrogen fixation and many other important biological processes, about which we have at present only very limited understanding. The solid state area is also one which will almost certainly attract more attention in the near future. In fact it is ironic that solution studies with all the attendant problems of solvation should to date have made more rapid advances than the solid state area.

In short, this is a book deserving of attention and one which is to be strongly recommended.

A. G. Sykes

A. G. Sykes is professor of inorganic chemistry at the University of Newcastle upon Tyne.

A volume in honour of Professor Dorothy Hodgkin, entitled *Structural Studies on Molecules of Biological Interest*, has been edited by Guy Dodson, Jenny P. Glusker and David Sayre and published by Clarendon Press at £39. The book opens with some personal recollections by those who worked with Professor Hodgkin in the early years of her career. Former students and colleagues, and others, then contribute discussions on the biological implications of molecular structure generally and accounts of structural chemistry and biochemistry, methods in crystallography, and structure and function in proteins.

Eclectic vocabulary

The Vocabulary of Organic Chemistry
by Milton Orbach, Fred Kaplan, Roger S. Macomber, R. Marshall Wilson and Hans Zimmer
Wiley, £18.75
ISBN 0 471 04491 1

The compiling, ordering and using of dictionaries, vocabularies and word manuals has been a matter of both interest and controversy since Dr Johnson's early essay in the field; it hasn't ceased with the present volume. Care is here taken to point out in the blurb that this is not a dictionary, that it is indeed "so much more than a dictionary: a unique reference text that teaches the latest concepts and terms in organic chemistry".

The authors are at pains to point out in their preface how they came to essay their task — which arose from discussions in the organic division of the department of chemistry in the University of Cincinnati on how to cope with the students' question: "What are we expected to know?" — out of the vast mass of disparate material that constitutes organic chemistry; to identify, indeed, the fundamental vocabulary of organic chemistry. It is their hope that by defining terms and concepts, with suitable illustrative examples, the book will provide not merely knowledge but also understanding.

The intrinsic success or failure of such an undertaking must turn in large part on the pattern of arrangement that is adopted. Here an alphabetical sequence is wholly rejected, and the first main division is into 15 separate chapters, symmetrical operations and symmetry elements; wave mechanics, quantum mechanics, atomic and molecular orbitals, bonding; hydrocarbons; classes of organic compounds other than hydrocarbons; stereochemistry and conformational analysis; polyfunctional compounds and compounds of mixed function; separation techniques and physical properties; ions and electron deficient species; thermodynamics, acids and bases, and kinetics; types of organic reaction mechanisms; name reactions, pathways; organometal compounds; natural products and biosynthesis; polymers; and, finally, fossil fuels, synthesis gas and industrial processes.

This particular selection seems at least reasonable, though not necessarily definitive: no doubt it reflects the present authors' interests and strengths, and a different group would likely have come up with a different selection. The claim is that this particular sequence of topics makes pedagogical sense, a claim

with which the reviewer is not wholly in agreement. Much more pertinent, however, is the sequence that is then adopted within these general headings. Here, the pedagogical aim was to ensure that "related terms and concepts appear in close proximity to one another and hence fine distinctions become more understandable." The actual arrangement of individual items in a chapter, not being alphabetical, must clearly be somewhat arbitrary, although each chapter has its own separate list of individual entries to assist in finding a specific topic.

So much for the arrangement, how does it work in practice? The verdict must be both a "hit" and a "miss". One naturally tends to look first at those areas with which one is most familiar and here individual entries are often very good, including a wealth of information in admirably succinct form. The first question must be: "Does it provide information that is not readily available elsewhere at the textbook level?" to which the answer must be "no".

The second question must then be: "Is the gathering together of such information in this particular form of specific use to any sector of the chemical community?" Here, I think the authors have missed the point; they have sought to be all things to all men — students, graduate students, teachers and working professionals — and it doesn't come off. It could have been that there was room for a little book of this kind directed specifically at the needs of undergraduates, although I am not wholly convinced even of this, and it would certainly have been an extremely difficult book to compile. As it is, one is doubtful whether any one of the categories of projected user is going to get his money's worth out of it.

Peter Sykes

Peter Sykes is a Fellow of Christ's College, Cambridge.

Cultural Contexts of Science and Mathematics Education: a bibliographic guide, by Bryan Wilson, has been published by the Centre for Studies in Science Education at the University of Leeds at £8.50 (including postage and packing).

A new critical edition of James D. Watson's *The Double Helix: a personal account of the discovery of the structure of DNA* has been edited by Gunther S. Stent and published by Weidenfeld & Nicolson at £10. The original text is accompanied by a commentary, retrospective views by Crick, Pauling and Klug, the most interesting reviews, and the relevant original papers.

Interfaces

Chemistry of Interfaces
by H. J. Jaycock and G. D. Parfitt
Ellis Horwood, Wiley, £27.50 and £8.50
ISBN 0 85312 028 5 and 298 9

The chemistry of interfaces is now so extensive that any modern textbook on the subject can hardly avoid the principal drawbacks of Mercator's map of the world; although most regions appear where they should their relative sizes can be either exaggerated or nearly lost altogether. This book is no exception.

It covers most of the expected topics but the treatment is uneven. Two short chapters on fundamentals and thermodynamics are followed by two lengthy ones on liquid interfaces and solid surfaces. The solid-liquid interface is dealt with in the last chapter; oddly the equally important solid-gas interface is incorporated under the heading of solid surfaces. The relative brevity of chapters one and two on matters relevant to all kinds of interface confirms the view that the study of interfaces has matured to the point where the area of common ground between liquid interfaces and solid surfaces is very limited.

Some sections of the book offer a very welcome depth of detail. The experimental techniques used for solid gas and liquid gas interfaces are well and fully described. Rather indulgently, McBain's celebrated (though basically pointless) attempts to verify the Gibbs adsorption equation are described at length.

The authors have wisely attempted to produce an encyclopedia of the subject. However, some of the topics they avoid are surprising. For example, given the subject as the chemistry, not the physics, of interfaces it is strange that there is no reference to heterogeneous catalysis nor to the modern techniques, such as low energy electron diffraction and electron microscopy, which have revealed so dramatically and directly the true nature of solid surfaces. Again, the authors are over-optimistic about the present status of the molecular theory of the liquid-fluid interface. Thus, they are drawn to an essentially macroscopic and accordingly somewhat dated approach which contrasts with the microscopic approach used for solid surfaces. Such a denial of molecular insights leads them to exclude any mention either of the 30-year-old theory of the surface tension of liquid mixtures based on the principle of corresponding states, or of the hitherto inaccessible detailed information on the liquid interface afforded by computer simulations over the past ten years, or of the relation of the "other" van der Waals' equation, the one on surface tension, to current thinking on the critical state.

As the preface proclaims, everyday life is largely conducted across interfaces. It is thus gratifying that at the end of this book on fundamental science has still been found for example of the application of the concepts described. That these should be few is understandable; that they do not include the timely and important one of tertiary oil recovery is not.

Is the book successful in its aim of being a clear, authoritative and well-referenced account of its subject matter? The answer, supported by a limited market survey among senior undergraduate and postgraduate students, is that it probably does. Its style is attractive if mildly idiosyncratic — is tenside widely used for surfactant? There are lots of useful diagrams and a delightful reproduction of the letter of Benjamin Franklin's letters on the calming effect of oil on troubled waters as far apart as the harbour of Newport, Rhode Island and the pond on Clapham Common. These features tempt the reviewer to add a fourth to the author's quotations from Lewis Carroll: "What is the use of a book," thought Alice, "without pictures and conversations?"

Ian A. McLure

Ian A. McLure is lecturer in the department of chemistry at the University of Sheffield.

Stage and state

Negara: the Theatre State in Nineteenth-century Bali
by Clifford Geertz
Princeton University Press, £10.30 and £3.35
ISBN 0 691 05316 2 and 00778 0

Clifford Geertz's principal contribution to the study of Bali has been his insistence that Balinese do not live out their lives solely within the confines of village institutions. Most major spheres of activity are organized by distinctive forms of association: the hamlet regulates community life; irrigation societies, drawing membership from a variety of hamlets, control the use of water; temples are maintained by a congregation. Two members of the same hamlet may well belong to different irrigation societies, temple congregations, kin groups, status groups, and voluntary organizations, as well as being subordinate to quite separate political authorities. In the nineteenth century a Balinese family head could well pay taxes to one king and owe corvée service to yet another.

In his new book Geertz turns attention to Balinese political structure. *Negara*, an old Sanskrit word for the state, applies in Indonesia to the centre of the realm seen in its various aspects as palace, court, capital and town. Because the Balinese kingdoms succumbed to Dutch conquest around the turn of the century, and because reliable attempts to produce an encyclopedia of the subject. However, some of the topics they avoid are surprising. For example, given the subject as the chemistry, not the physics, of interfaces it is strange that there is no reference to heterogeneous catalysis nor to the modern techniques, such as low energy electron diffraction and electron microscopy, which have revealed so dramatically and directly the true nature of solid surfaces. Again, the authors are over-optimistic about the present status of the molecular theory of the liquid-fluid interface. Thus, they are drawn to an essentially macroscopic and accordingly somewhat dated approach which contrasts with the microscopic approach used for solid surfaces. Such a denial of molecular insights leads them to exclude any mention either of the 30-year-old theory of the surface tension of liquid mixtures based on the principle of corresponding states, or of the hitherto inaccessible detailed information on the liquid interface afforded by computer simulations over the past ten years, or of the relation of the "other" van der Waals' equation, the one on surface tension, to current thinking on the critical state.

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New Essays on Human Understanding by G. W. Leibniz
edited and translated by Peter Remnant and Jonathan Bennett
Cambridge University Press, £28.00 and £10.50
ISBN 0 521 23147 7 and 29836 9

British attitudes towards continental philosophers have often been, and sometimes still are, hostile and dismissive. The division between empiricists in Britain and rationalists abroad, however crude and misleading in content, has nevertheless marked a temperamental, even xenophobic, contrast of real significance. Of all the traditional philosophers on the continent none has suffered more from this insularity than Leibniz. Other traditional continental philosophers may be regarded as worthy but misguided opponents, but only Leibniz has tended to be seen as a villain with a metaphysics that cannot be taken seriously. For long periods he has

been neglected, his works untranslated, and his doctrines misunderstood. Even in the period when Russell and Couturat revived a serious interest in his work the revival did not persist.

The explanation for this neglect is no doubt complex. Partly it may lie in the relative inaccessibility of Leibniz's writings, many of which still remain untranslated into English, and partly in the apparent extravagance of his metaphysics and theology. But partly, too, it must lie in a kind of folk-memory of Leibniz's supposed failings, the alleged plagiarism over the invention of the infinitesimal calculus, the Voltairian lampooning of a Leibnizian optimism in *Candide*, in the various stories of Leibniz's claimed personal inadequacies. Nowadays the situation is improving with a real interest in Leibniz's logic and his metaphysics, and Remnant and Bennett's version of the *New Essays* is a further indication of this trend.

We should, therefore, be grateful to the editors for work which has

Dr Barnes is lecturer in social anthropology at the University of Oxford.

BOOKS

All you wanted to know about karma

Karma and Rebirth in Classical Indian Traditions
edited by Wendy Doniger O'Flaherty
University of California Press, £16.50
ISBN 0 520 03923 8

There was a time when western scholars thought they understood the theory of karma. It could be crudely but not too inaccurately summed up as a moral debt and credit account held by every living being, human and non-human; at death the balance was struck and the holder of the account went on to an appropriately good or bad rebirth. Now there is less certainty that karma theory is quite so simple.

The American Council of Learned Societies with the Social Science Research Council held two conferences, in 1976 and 1977, to engage in what Wendy O'Flaherty here calls some "preliminary treasure-hunting". An attempt to deal with "all you wanted to know about karma and never dared (bothered?) to ask". The difficulty was in deciding what it was that we should want to know about karma, "we" in this case being people of western culture who have been conditioned by a set of totally different presuppositions about human life. One of the first problems that arose was whether karma is a theory, or a model, or a metaphor, or metaphysical science. Should one try to construct a theoretical

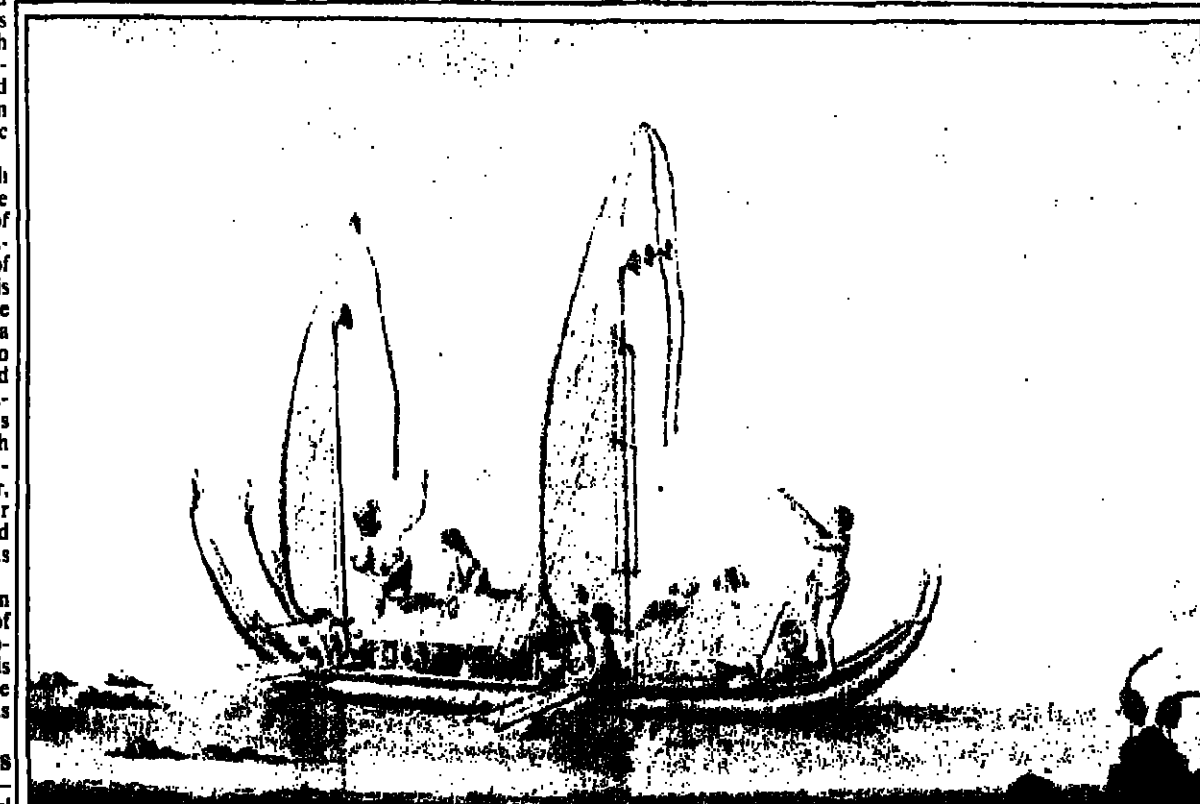
model or explicate an historical process? What kinds of approach are most relevant: logical, historical, or social; transactional or philosophical; physical or ethical; cosmological or soteriological?

The outcome of the two conferences was a number of papers, 12 of which are reproduced here, and only two of which are by scholars of South Asian origin: Professor Padmanabh Jaini of California (Berkeley); and Professor Gananath Obeyesekere of California (San Diego). The papers are arranged in three groups in a way that indicates certain presuppositions: first, Hinduism and its roots, second, Buddhism and Jainism; third, philosophical traditions.

The first group indicates an attempt to establish the historical origins of the theory (the term O'Flaherty uses to refer to karma), and the view taken here is one which is associated with the work of David Keightley that the earliest known Sanskrit rites reflect an even earlier stage, when "the simpler, unsophisticated Vedic desire to prevent the dissolution of an after-life for the deceased" may have prevailed over the desire to prevent rebirth. The origin of the karma theory is thus placed at least as early as the Vedic period. Such a view is not necessarily in conflict with the hypothesis that the Vedic Aryans adopted the karma theory from the indigenous peoples of northern India.

Trevor Ling

Trevor Ling is professor of comparative religion at the University of Manchester.



A wash drawing by an unknown artist of a double sailing canoe, taken from Edwin N. Ferdon's *Early Tahiti as the Explorers saw it, 1667-1797* (University of Arizona Press, £16.25 and £7.00 (distributed by Transatlantic Book Service)).

Leibniz and Locke — philosophical shadow-boxing

resulted in an attractive and informative new account of Leibniz's extensive reaction to Locke's *Essay Concerning Human Understanding*. They have supplied essentially a well translated, readable, and scholarly version of the original text. They have added a fair section of background notes to the many contemporary references in the text which are not now immediately familiar. And they add a rather short introduction, which disappointingly says little of the philosophical issues but talks mainly of the background to Leibniz's work and their own textual and editorial problems. Their outstanding merit is to have produced a nicely annotated and clear English version of the basic text.

One might, then, look greedily for some further philosophical illumination from the text; perhaps some new and revealing aspect of Leibniz which will finally correct the distortions of his common reputation. But even the editors' modest about this. "The principal defects of the *New Essays*", they write, "are con-

spicuous and notorious. Let them be admitted at once". Few will disagree with them. The work presupposes, rather than exhibits, Leibniz's own where nevertheless Leibniz's more positive metaphysics occupies a clearer and more prominent position. On a more personal level Leibniz's reaction to Locke is pervasively courteous and approving, while the text frequently and interestingly reveals the voluminous extent of Leibniz's interests and knowledge.

If it is hard to disagree with the editors about the failings of the work, it is nevertheless equally hard to disagree with them about its merits. These are to be found in the detail rather than in the large. A reader looking for a quick and sympathetic guide to Leibniz's system will not easily find it here. But one who already knows something of that philosophy will certainly find innumerable insights throughout the work.

Graham Bird

Graham Bird is professor of philosophy at the University of Manchester.

NOTICE BOARD

Noticeboard is compiled by
Patricia Santelli
and Milla Goldie

Appointments

Birmingham

Head of department of engineering production:
Professor K.H. Haley. Dean of faculty of arts:
Professor James T. Boulton.

Surrey

Lecturers: G.A.R. Parke (civil engineering);
D.C. Povey (chemistry); J. Kish (well education);
Ingend U.M. Perkins (linguistic and international studies); Diana M. Lunnell (educational technology); Senior lecturer: S.R.C. Wainall (economics and tourism management);
N.M. Ragg (adult education/institute for Educational Technology). Research officers: Elizabeth S. Cordingley (sociology); J.Z. Skowicki and C.

Grants

Edinburgh

Respiratory Medicine £18,601 from the British Heart Foundation, in support of research on breathing patterns and transient hypoxaemia during sleep, under direction of Professor D.C. Henry.

Orthopaedic surgery £86,862 from Department of Health and Social Security, in support of research on the evolution of patient support systems, under the direction of Professor R.C.H. Aitken and Dr F. Bell.

Child Life and Health £44,500 from the Foundation for the Study of Infant Deaths for research on clinical studies of respiration and the sudden infant death syndrome, under direction of Dr T. Simpson.

Open University programmes May 16 to May 22

Saturday May 16

8.00 Contemporary issues in education: New and the Future (E201; prog 8)
8.05 Mechanics and applied calculus: Rigid Bodies (M212; prog 6)
8.10 Arts foundation course: Music and Images (A101; prog 12)
8.15 Politics and administration: The Object of Policy (P101; prog 11)
8.20 National income and economic policy: Fiscal Policy: Is it stabilizing? (E204; prog 11)
8.25 Seventeenth century England: a changing culture: 1688-1689. Cosmology before Newton (A203; prog 7)
10.10 Conflict and stability in the development of modern Europe 1789-1870. The Enlightenment of the French Revolution (A201; prog 12)
10.35 Instrumentation. Penetration Transducers and Counting (T201; prog 5)
11.00 Control engineering: Constructing a Model (C201; prog 4)
11.25 The Enlightenment. The Church and the State (A204; prog 7)
11.50 Business economics: The Gamble of Investment (B201; prog 12)
12.15 Biology, form and function. Differential Gene Expression (B201; prog 12)
12.40 Genetics. How to Build a Phage (G200; prog 6)
12.55 Behavioural science: Pathways in the Brain (S204; prog 6)
13.30 The Brain: structure, composition and evolution. Techniques and the Real Brain (S201; prog 12)

RADIO 3 (VHF)
8.05 History of architecture and design 1800-1930: The English Country House (A203; prog 12)
8.15 Personality and learning: Children's Questions (P201; prog 11)
8.20 Music literature.
8.25 Environmental control and public health. Effluents from food processing and brewing (F202; prog 6)
7.15 Arts foundation course: Music and Words (A101; prog 12)
7.15 Mathematics foundation course: Foundation Maths 4 (M101; prog 6)
RADIO 4 (VHF)
18.00 Broochery and molecular biology: Allostery (B201; prog 6)
18.05 The development of control: Counting by Software and Hardware (M221; prog 12)
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Awards

Genetics £64,300 from the Health and Safety Executive for the research on the molecular cellular and in vivo aspects of teratogenicity; calibration of a new in vitro cell assay, under direction of Dr R.M. Clayton.

Physiology £40,294 from the MRC for research on central-peripheral interactions during embryonic development of spinal reflexes, under direction of Dr R.R. Rutherford.

Molecular biology £10,200 from the MRC in support of research on the cloning of the surface antigen genes of the malaria parasite *Plasmodium falciparum* under direction of Dr J.G. Scallie.

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Forthcoming Events

"The Articulation of Power in a peasant Society: The case of Pakistan by Dr Hamza A. Alavi senior lecturer in sociology at the University of Manchester is one of five public lectures on South Asian Politics and Development, to be delivered on May 19 at 8pm at the London School of Economics, Houghton Street, London WC2. Admission free.

"The Empirical Basis of Monetarism", a one day conference organized by the Association of Polytechnic Teachers in Economics is to be held at Kingston Polytechnic, on May 20. Topics include: "Unemployment and monetary policy, the UK experience by Dr Meghna Desai of the LSE. Fee: £10 for members and £13 otherwise. Further information from Mr George Hadjimatheou, School of Economics and Politics, Kingston Polytechnic.

"The Mobility of Students within the Commonwealth", a one day conference organized by the Council for Education in the Commonwealth in collaboration with Brunel University and the Association for Sandwich Education and Training is to be held on May 20 at the university, Uxbridge, Middx. Fee: £20.00. Topics include: "Overseas Students - The need for Practical Schemes by Lord Gladwin, president of the United Kingdom Council for Overseas Student Affairs. Further details from Mr O.P. Rutterman, Institute of Industrial Training, Brunel University.

"19th Century Speculative Housing", a symposium to be held on May 19 at the Polytechnic of the South Bank, depends on the university, Wandsworth Road, London SW8 2JZ. Speakers include: Hermione Hobhouse, Jeremy Dixon and Stefan Mathews. Further details from Neil Jackson, South Bank Polytechnic.

"The Society for Caribbean Studies will be holding its 11th annual conference on May 26-28 at the High Leigh Conference Centre, Huddersfield, Herts. The programme will consist of 19 papers on a range of topics including 'Slavery and Resistance in the Caribbean' Education and black people in British society. Further information from the Hon Secretary Dr Elizabeth Thomas Hope, department of geography, Liverpool University, PO Box 147, Liverpool L69 3BX.

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Administration

Training Officer

welding technology

up to £8,500 Derbyshire

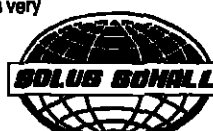
Solus Schall, a major international inspection company, is currently looking for a Training Officer to be responsible for its training centre in rural Derbyshire.

The successful candidate will be expected to operate the school as an independent cost centre and will be responsible to the Personnel and Operations Manager for all aspects of training. Experience of welding technology, inspection and NDT is obligatory and knowledge of surface coating is desirable. Familiarity with current certification schemes - ECA, CSWIP, ASNT and Lloyd's is essential.

The person appointed will need to have considerable personal initiative, and should be capable of working with the minimum of direct supervision. Some overseas travel will be involved. Further training to enhance existing skills will be given if necessary.

Relocation expenses will be paid where appropriate, to this very attractive part of the country.

Applications should be made in writing to Chris Gamor, Personnel and Operations Manager, Solus Schall, Annabelle House, 28 Staines Road, Hounslow, Middlesex.



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UNIVERSITY OF MANCHESTER
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Director: Professor Gordon Black

UMRCC is a national centre providing a general service to over thirty universities in the United Kingdom. This service is currently based on two Control Data 7800 computers each front ended by an ICL 1900. A CDC Cyber 170-720 dual system provides an interactive service to Manchester users, accessed by some two hundred terminals.

Applications are now invited for a senior management position in one of the foremost computer centres in Europe:

User Services Manager

This post carries responsibility for all aspects of the support of the 10,000 users of the Centre, and the representation of users' needs within the senior management of the Centre. The successful applicant will join the Centre's management team and will contribute to a number of programmes to develop the effectiveness of the organisation.

Applicants for this senior position should be educated to degree standard and should be able to produce evidence of substantial management experience in a similar environment with particular emphasis on the organisation of user support functions including advisory services, documentation, applications programming, and liaison with remote user organisations.

The appointment will be made in either Grade III (£12,305 to £16,410 p.a.) or Grade IV (£15,730 minimum) depending on experience. Benefits include a good pension scheme and generous holiday entitlement.

If you have the necessary experience and would enjoy working in a stimulating environment send for further particulars and an application form (returnable by 11th June 1981) to The Registrar, University of Manchester, Oxford Road, Manchester M13 9PL quoting reference 78/81/7.

Council for National Academic Awards

ASSISTANT CHIEF OFFICER

Applications are invited for a post of Assistant Chief Officer which is about to become vacant through the retirement at the end of the current academic session of the present holder of the post. The Assistant Chief Officer will have major responsibilities for the co-ordination of the work of the Council in the field of Science and Technology, and will also have a central role in the formation and implementation of policy and in providing the main link between the Council and some fifty of the Colleges offering courses leading to CNAA awards.

Applicants should have appropriate experience. While experience of teaching, research and administration in the field of higher education would be particularly appropriate, the Council will also consider applications from persons who have gained experience in posts carrying major responsibility in other fields.

The salary on appointment will be within the range £19,659-£23,478 p.a. including London Weighting.

Further particulars may be obtained from: Assistant Secretary (Personnel), CNAA 344/364 Gray's Inn Road, London WC1X 8BP. Tel: 01-278 4411.

To whom applications giving details of qualifications and experience and the names of three referees should be submitted by 3rd June 1981.

SEE NEXT WEEKS THE FOR BOOK REVIEWS ON ENVIRONMENTAL STUDIES

LONDON TRINITY COLLEGE OF MUSIC ACADEMIC REGISTRAR

The post of Academic Registrar will be available shortly and applications are invited from suitably qualified persons, preferably of academic status.

Previous administrative experience in an educational field.

Post is Graded SO2 on NMC Scale. Starting salary £5,354. For further details apply to Assistant General Administrator, Trinity College of Music, 10, St. James's Place, London W1M 8JL. Applications close 1st June 1981.

Research

PLYMOUTH POLYTECHNIC

COMPUTER CENTRE

RESEARCH ASSISTANT

Applicants should have a good honours or post-graduate degree and have experience in, or knowledge of, systems theory, cognitive psychology and a particular interest in developing and testing a high level user-friendly computerised model to improve machine problem solving in complex situations.

The Centre operates a dual purpose 680 system with a variety of graphical input devices, which will be expected to contribute to the research project.

Research assistants are expected to register for a higher degree, although postdoctoral applicants may be considered.

Appointments are for two years, with the possibility of a third year third term contract.

Salary range will be £5004-£5800 post doctorate or £4625-£5200 post degree or equivalent.

Further information can be obtained from Dr. A. B. Bunting Tel: Plymouth 0522 21212 ext 6441.

Application forms to be returned by Friday, 26th May 1981 can be obtained from the Personnel Office, Plymouth Polytechnic, Drake Circus, Plymouth, PL4 8AA.

Appointments are invited for a Research Fellow to work on an MRC-sponsored project concerning the mechanism of action of the neurotransmitter, acetylcholine, at the neuromuscular junction.

The project will involve the use of a variety of techniques including electrophysiology, pharmacology, and the use of computerised data analysis.

The specific area of research depends on the applicant's background and interests, but will be relevant to the work of the department. The appointment will be for two years in the first instance.

The main objective of this appointment is to enable the applicant to register for and complete a research degree under the regulations of the CNAA, and to conduct research in the field of neuromuscular transmission.

Details of post and application form from the Personnel Office, Plymouth Polytechnic, Drake Circus, Plymouth, PL4 8AA.

Completed forms should be returned by 3 June 1981.

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Research continued

UNIST

RESEARCH ASSOCIATE

MECHANICAL ENGINEERING AND ENGINEERING PRODUCTION and THE WELSH SCHOOL OF ARCHITECTURE

John Williams of Cardiff Limited, in conjunction with the Department of Mechanical Engineering and Engineering Production and The Welsh School of Architecture UNIST, are undertaking projects aimed at improving the energy efficiency of their industrial operations; steel stockholding and processing, iron founding, and the manufacture of aluminium architectural products, and their building services.

Initially we seek to recruit one graduate with a good first degree in Mechanical Engineering or Physics. Ideally this will be supplemented with industrial experience or relevant postgraduate activity.

The appointment will be for 3 years. Suitable candidates will be expected to share the administrative and policy making responsibilities. The appointee will be required to provide sound academic leadership with an understanding of integration of practical and theoretical aspects in the Arts, Design and cognate areas.

The School is the major tertiary Art and Design teaching establishment in Melbourne's northern suburb. At present, four courses are offered - Bachelor of Arts, Diploma of Art, Diploma of Design. These three year courses combine a common first year, followed by major studies in either the two dimensional, three dimensional, Media Arts or Design. In addition, there is a Post Graduate Diploma in Fine Art of one year duration.

The appointee will have general responsibility for the post graduate programmes, embracing the studio based and theoretical/historical components. Applicants possessing a tertiary qualification, combined with high professional standing in the community and considerable teaching experience, will be preferred.

The School's workshop area include: Arts Theory, Ceramics/Glass, Design, Drawing, Fibre/Weaving, Film, Painting, Performance/Video, Photography, Printmaking, Sound, Sculpture.

Salary: Principal Lecturer III - (Aust.) \$31,288 p.a. Applications close on Friday, 5 June 1981.

Appointments are invited for a Research Fellow to work on an MRC-sponsored project concerning the mechanism of action of the neurotransmitter, acetylcholine, at the neuromuscular junction.

The project will involve the use of a variety of techniques including electrophysiology, pharmacology, and the use of computerised data analysis.

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Colleges of Higher Education continued

GWENT COLLEGE OF HIGHER EDUCATION

Principal Lecturer in Computing

(Head of Section)

Salary: £11,298 - £12,591 - £14,238

The College is expanding its provision in computing, micro-electronics and micro-electronic education, and requires a Principal Lecturer as soon as possible to lead a team concerned with the operation and development of computing courses and facilities in the College.

Applications should be made in the form of a curriculum vitae including the name of two referees to: D. T. Rees, Dean of Faculty of Science and Technology, Gwent College of Higher Education, All-yr-y-n-Awen, Newport, Gwent, NP23 5BA. Further information available from the above, Tel: Newport (0633) 51625 Ext. 23.

Overseas

PRESTON INSTITUTE of TECHNOLOGY

Plenty Road, Bundoora, 3083, Victoria, AUSTRALIA.

The Preston Institute of Technology is a multi-disciplinary institute situated in the Northern area of Melbourne, Australia. It is established on a new and attractive campus of some 42 hectares and has a current enrolment of 3,000.

SCHOOL OF ART AND DESIGN

Applications are called for the position of PRINCIPAL LECTURER

The successful applicant will be responsible to the Head of School, will be deputy to the Head of School and will be expected to share the administrative and policy making responsibilities. The appointee will be required to provide sound academic leadership with an understanding of integration of practical and theoretical aspects in the Arts, Design and cognate areas.

The School is the major tertiary Art and Design teaching establishment in Melbourne's northern suburb. At present, four courses are offered - Bachelor of Arts, Diploma of Art, Diploma of Design. These three year courses combine a common first year, followed by major studies in either the two dimensional, three dimensional, Media Arts or Design. In addition, there is a Post Graduate Diploma in Fine Art of one year duration.

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Overseas continued

KING ABDULAZIZ UNIVERSITY JEDDAH

With the expansion of Faculties and Departments in this rapidly growing University, several vacancies in the teaching staff have arisen for suitably qualified men and women to fill the following posts:

FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION

The Departments of Business Administration, Accountancy and Economics require Professors, Associate Professors and Assistant Professors.

FACULTY OF ARTS

The Department of English requires Professors, Assistant Professors and Lecturers and the Department of History has openings for Professors, Associate Professors and Assistant Professors with special knowledge of Greek, Roman, Islamic and European History.

The Department of Geography has vacancies available for Professors, Associate Professors, Assistant Professors and Cartographers.

The Department of Information has openings for Assistant Professors having experience in Media (Television, Sound Broadcasting and Press).

Vacancies are opened in the Department of Library Studies for Professors, Associate Professors and Assistant Professors.

FACULTY OF SCIENCE

Vacant posts are available in the Department of Astronomy for Assistant Professors, Demonstrators, Instrument and Laboratory Technicians.

The Department of Statistics requires Professors, Associate Professors, Assistant Professors and Demonstrators.

The Department of Mathematics requires Professors, Associate Professors and Assistant Professors.

The Department of Biology requires Associate Professors and Assistant Professors in Plant Taxonomy and Vertebrate Zoology, Microbiology, Genetics and Ecology, and Demonstrators, Research Assistants and Laboratory Technicians in Zoology and Botany.

The Department of Chemistry requires Professors, Associate Professors and Assistant Professors with special interest in Biochemistry and Spectral Analysis. Laboratory Technicians are also needed.

FACULTY OF ENGINEERING

The Department of Electrical Engineering requires Professors, Associate Professors and Assistant Professors as well as Laboratory Technicians.

The Department of Civil Engineering requires Associate and Assistant Professors primarily in the fields of construction and construction materials, Harbour and coastal engineering, projects and foundation engineering and water and sewage treatment.

Technicians are required to work in the fields of Hydraulics, subsurface surveys, construction, mechanical, transportation and building materials.

The Department of Architecture and Planning requires Professors, Associate Professors and Assistant Professors specialized in the field of Town Planning, Building Planning and Ecology.

The Department of Meteorology requires Associate Professors and Lecturers in the fields of Climatology.

UNIVERSITY OF GUYANA

"YEAR OF ENERGY"

VACANCY - DEPARTMENT OF POLITICAL SCIENCE AND LAW Senior Lecturer or Lecturer in Law

Applications are invited for the post of Senior Lecturer or Lecturer in the Department of Political Science and Law in the Faculty of Social Sciences.

Duties will include the following:

(a) Teaching and research in Law.

(b) Development of appropriate and relevant teaching programmes and materials.

Applicants must hold a post graduate degree in law and be interested in legal education. For the post of Senior Lecturer applicants must also possess evidence of research and teaching ability.

Salary scale (Per Annum)

Senior Lecturer - UA 2: G\$17,780. \$540. = \$19,020.

Lecturer I - UA3: G\$9,999. = \$480. = \$11,880.

Benefits include housing allowance, contributory medical and pension schemes, and study leave. Anyone recruited from overseas will receive up to four full economy air fares (i.e. for himself/herself, spouse and unmarried children up to eighteen years of age), limited removal expenses and a settling-in allowance.

Applications (3 copies) stating name, date of birth, marital status, qualifications with dates obtained, work experience (with dates), names and addresses of three referees must be your present or last employer, where applicable, must reach the Personnel Division, University of Guyana, P.O. Box 10110, Georgetown, Guyana, before 22nd April, 1981.

Please write or telephone for an application form to the following address: United Arab Emirates Embassy, Education Department, 48 Prince Gate, London SW7 2AL. Tel 01-838 3838 Ext. 52. Applications will then be forwarded to the UAE University for their consideration.

THESE12

SAUDI ARABIA KING ABDULAZIZ UNIVERSITY JEDDAH

TECHNICIANS Fully qualified technicians are required to fill posts in the Departments of Astronomy, Physics, Biology, Chemistry, Electrical Engineering, Marine Biology, Marine Chemistry, Marine Physics, Marine Geology, Marine Engineering and Geo-Chemistry.

Rock Technicians are also required for Petrology.

The Department of Civil Engineering requires technicians in Hydraulics, Sub Surface Surveys, Construction, Transport, Mechanics and Building Materials.

Salaries are negotiable depending on qualifications and experience. There is no income Tax in Saudi Arabia and there are no exchange control regulations.

APPLICATIONS AND CLOSING DATE: There is no special application form. Applications together with curriculum vitae, a passport size photograph and the names and addresses of two referees should be addressed to: The Permanent Contracting Committee, King Abdulaziz University, P.O. Box 1540, Jeddah, Saudi Arabia. Interviews will be held in London and short listed candidates will be invited to attend sometime during Summer 1981.

THESE13

Applicants are invited from suitably qualified persons registered in any, once editor or editorial origin his appointment is the most successful applicant, in addition a salary bonus of \$15 p.c. of one month's salary is payable subject to treasury regulations.

The senior staff position has been created by the University of Natal and the South African Post Office in response to increased demand for electronic engineers proficient in microelectronics.

Practical experience in planning in overseas and experience sufficient to establish competence in teaching at tertiary level, and a competence in designing practical programmes to complement the Lecture material.

An ability to handle the planning and management of urban land would be an advantage.

Salary within the range \$26,698-£29,917 p.a.

A position description is available from Staff Officer, RMIT, P.O. Box 2470, P.O. Melbourne, 3001. Applicants quoting ref. no. 12821/AM in the Staff Officer by 17.8.81.

THESE12

Applicants are invited from suitably qualified men and women for the following posts in the UAE University Computer Centre.

1. SYSTEM ANALYST OR SYSTEM PROGRAMMER

Basic Salary Dirhams 4900 to 6000

Education: PhD. Computer Science, Informatic, Spermatic, Statistics, Mathematics, Economics, Commerce, Engineering.

Experience: Enough experience in developing and analysing different systems.

OR

Education: BSc in the same specialisation.

*Experience: Four years or more in developing and analysing different systems.

2. SENIOR PROGRAMMER OR SYSTEM PROGRAMMER

Don's diary

Saturday

1.00 pm. At 3,500 feet on top of Carnedd Llywelyn in North Wales, dressed in waterproof suit, glissading down a steep snow slope on my stomach, learning how to stop by using an ice-axe. It is an exhilarating experience, enhanced by the beauty of the day, the view of Snowdon and Tryfan across the valley and the feel of the crisp frozen snow.

I am with seven PE students and three instructors on a snow and ice climbing course in Snowdonia. My official role is to drive the minibus and ensure good liaison but the real bonus of the weekend is that it presents an opportunity to develop relationships by working alongside students and, simultaneously, to relax and enjoy myself.

Sunday

We clean the hut, rather more thoroughly than usual, looking for some lost car-keys. The start delayed, the programme is modified and we spend four hours practising climbing techniques on the Idwal Slabs.

Home to a hot bath and roast duck. A really enjoyable weekend.

Monday

7.30 am. Ache all over. Monday starts with the usual attempt to reduce the mail and an interview with the head groundsman. We are having difficulty in controlling the use of our floodlights by students and he takes me to task for not having implemented the suggestions he made some six months ago. I go straight from this discussion to my third year philosophy of sport class feeling that this is going to be my day. At this final session with the students I have to collect a four page questionnaire which they have completed, anonymously, on my performance as a lecturer.

12.30 pm. Visit Keele University to have lunch with the director of physical education to discuss some of the key motions which are to be put at the National Conference on Physical Education.

The afternoon is spent on office work with three students coming for help with application forms for first teaching posts. Last year, all the leaving students from Madeley obtained first appointments within six weeks of the course's finishing which more than compensated for the many hours writing references.

Monday evening. Revise the third year course outline and read, with some trepidation, the student questionnaires. With the exception of one response which indicates that the student concerned had achieved "only fragmentary understanding" of the course content as a result of my teaching and that his/her interest in my subject had "increased to no extent" the overall response was both rewarding and re-asserting.

Tuesday

Still nothing. Finalise departmental estimates for 1981-82 and 1982-83. Any mistakes now and the department will have to live with them for the next year or so.

The work is interrupted by a call from the secretary of the Physical Education Association with an invitation to propose two motions at the national conference. A strange coincidence in view of yesterday's meeting but I am pleased to accept, not least because it will help to promote our new title of school of physical education.

Prepare the details for the committee, which is to appoint two new members of staff on Friday.

Lunch-time run with colleagues, five of whom are preparing for the Birmingham Marathon. Spend the greater part of the afternoon going through the first set of examination questions for

the BA (Hons) degree, in sport and recreation studies. This is a new degree course and the examinations are prepared by five different departments. One question hardly seems relevant to sport and recreation and seems to originate from none of these five departments. I check to find that "under achievement in education in the working classes" is included in the sociology syllabus and make a note that perhaps it needs some slight adjustment.

Evening. Spend a couple of hours finalising my lecture for my fourth year students on Thursday evening. They are the most enjoyable of all my groups. Go to bed early, still feeling tired from the effects of the weekend. Must be getting old!

Wednesday

The day starts on a high note. While I was on a teaching practice visit to Shrewsbury a horse and rider careered across the road into my car. The horse was unhurt except for a small cut on its flank, the car needed repairs costing £400. Fortunately, the horse owner's insurance company agreed to pay the bill and telephoned me to say that I can go ahead and have the repairs done.

Office work all morning, pleasantly interrupted by a brief meeting with five candidates for the BE degree course. Nationally, interest in the BE courses is lower this year. There is some discussion in the educational press about the future of the BE degree but for the courses of specialist nature such as home economics or craft, or for primary teachers, the BE route is by far preferable to any 3+1 arrangement and this is certainly the case with physical education. Fortunately, our course is recruiting well.

Afternoon, attend the BA committee meeting specifically to contribute to the discussion on examinations. The item is never reached.

Evening, take my middle-aged businessmen's keep-fit class.

Thursday

Meeting with the director. Difficulties relating to staffing are my main concern. The basic problem is that the department is growing rapidly when the polychronic is in the grip of the economic recession.

Afternoon. Faculty board. A dreary meeting which lives up with the main item which is to consider proposals for five short courses before they are submitted to validating committee. I enjoy studying the questioning technique of two fellow heads. One is direct, but protesting; the other is quiet, gentle, yet equally penetrating.

Finish teaching at 6.30 and home for 7.00 pm. Spend a few moments during the evening reading the application forms from the candidates for the last time.

Friday

Arrive early to check the interviewing arrangements then teach until 11.00 am. I meet the five candidates for coffee and feel immediately reassured that they all at least "look the part".

While I talk to each candidate individually for a few moments other members of the department take them for a conducted tour and discuss the detailed syllabuses in their respective areas. Senior colleagues take them for lunch and we meet afterwards to discuss the candidates as potential colleagues.

1.30 - 3.30 pm. Interviews. 3.30 - 4.30 pm. Deliberations. It is not an easy choice. The problem is matching qualifications and experience with departmental needs and, reluctantly, one excellent candidate cannot be accommodated.

Alan Hargreaves

The author is head of the Madeley School of Physical Education, North Staffordshire Polytechnic.

Philosophy and dollars at stake



George Rainsford

What is at stake for higher education is a matter of philosophy as well as dollars. It is not clear whether or not President Reagan is actually advocating cutting 600,000 or more students from the rolls of higher education because reductions in federal grant aid loan programmes will place education on their own financial feet. Alternatively there are clear messages that he expects that state and private sources will rush to fill the vacuum left by the withdrawal of federal dollars. The higher education community, however, is bound to raise questions about both positions.

If the President is actually anticipating a major decline in college-going youth because of financial unavailability, then this clearly means that he sees financing higher education as a social cost rather than a social investment. However, the aggregation of an investment in human capital is as essential as fiscal or physical capital if the supply side economics arguments of the administration are really to change American society. The United States is already falling severely behind Japan, West Germany, and even Russia in its industrial R & D expenditures. If this happens in the investment in human capital, then whole generations will be lost to productive contribution to the nation.

Conscious of that fact, elements of the higher educational community have already come forward with alternative ways of achieving the President's desired budget cuts which will not have such a devastating impact on higher education. How open Reagan and Stockman will be to consideration of alternatives remains to be seen.

We believe that in this situation the important thing both from an educational and humane point of view is to keep the university workforce intact. Starting on this basis the UGC should have studied the possibility of giving guidance to universities on the areas in which savings could be made to meet the lower sums of money available.

However regrettable it may be, the UGC should have pressed on a short-term basis (perhaps for the next three years) for there to be more flexibility with the equipment grant so that money could be used to save jobs instead of buying new equipment.

AUT

Universities might be encouraged to examine their working year so that by readjustment closures could be made in January or February in order to save on massive fuel bills. Talks should have taken place to ensure that good terms for a voluntary early retirement scheme should come into being to save on manpower in this way and a detailed study of the non-salary expenditure should have been taken place.

It is the view of the AUT that the selective cuts policy of the UGC will be both divisive and inequitable. Divisive in the sense that it will cause conflict between department and department, institution and institution and individual and individual. This is bad both for the people concerned and educational standards in general.

However, there is already disturbing evidence that both men are less amenable to pressures for philosophical or intellectual alternatives than they are for political.

The second argument is concerned with the Reagan-Stockman assumption that state and private sources will rush to fill the federally created funding vacuum. There appears to be little evidence to support this assertion. While state governments have increased their student aid funding substantially, it has been largely in response to federal incentive grant programmes. State budgets are also in many cases as severely pressed as the federal budget. So far as private sources are concerned, foundations are already giving as much as is required by law. The federal government's pressure for tax reform and the continuing attacks on tax expenditures and the foregone revenue represented by tax credits, deductions, and exemptions so critical to the continuation of private philanthropy can hardly be said to be encouraging of more private investment in education or any other social investment. In fact, the balance of funding has shifted so dramatically to the federal level that it is unlikely that major federal cutbacks will be matched by vigorous new funding from states or private sources.

The new Reagan budget has, however, forced a review of some important educational aid philosophies. Parallel contributions to the education of the young have been declining under recent federal and state aid programmes. If the Reagan philosophy of local initiative is to hold true, parental contributions should rise to play a larger role. Tuitions will also rise even in public institutions as both state and federal public funding decline. Thus, ever, is bound to raise questions about both positions.

Bringing inflation under control will be an enormous benefit to education and trimming federal spending is a necessary step in that direction. Yet the contribution of education to the quality and vigor of American life is more than an economic matter. It should be clear to the supply side economists that the current savings from the substantial educational budget cuts proposed will be insignificant compared to the resulting cost of the foregone national educational benefits in the future. Postponing capital investment in education will only result in a decline in productivity of future generations. Thus, as higher education searches for alternatives to the proposed deep budget cuts in the federal educational budget, it will be important not to see those arguing the education of future generations of young Americans as just another special interest group.

What is even more worrying is that the selective cuts are being worked out behind closed doors. Although it is true that general talks have taken place with the AUT at which views were expressed, there have been no arrangements whatsoever to consult with the unions on the specific proposals before they have been put into force, although the job of union members are directly affected.

When unions try to discuss the matter within individual institutions they will be told that decisions were taken by the UGC and that the institution concerned can do nothing about them. This drives a coach and horses through Section 99 of the Employment Protection Act which gives the unions the rights to be consulted and make representations where redundancies are threatened with the full information being made available. The selective cuts policy in the UGC will be implemented by the UGC will ride roughshod not only over union rights but also ride roughshod over the general autonomy of the universities.

Above all this, however, is the humane consideration that allows a cool contemplation of removing from their jobs university people with dependants to support and mortgages to pay. It seems to have been forgotten in all this melee that universities are about people and people are university people. The day we put things before people will be the day when the universities deserve everything they get.

Laurie Sapper

The author is general secretary of the Association of University Teachers.

Nuclear disarmament and the AUT

Sir, — A.J. Hanna hopes that there will be enough sensible people, as opposed to political extremists, on the AUT Council to throw out the resolution on nuclear weapons. Hasn't he got his stereotypes the wrong way round?

The person who wants to keep nuclear weapons is prepared, in certain circumstances, to launch an attack which would kill millions — probably tens of millions — of people. Those killed outright would probably be outnumbered by those who died rather slowly from the effects of burns and radiation. He would be prepared to do this because he would be sure that any possible alternative would be worse. There, I think, you have the extremist.

The opponent of our retention of nuclear weapons, on the other hand, does not necessarily lay claim to any especially lofty moral principle or any political certitude. He relies only on the commonplace and minimal principle that one ought to draw the line somewhere. He observes that most grand political designs lead to consequences rather different from those expected or intended, and he would not incinerate even one million people on the strength of any political prognosis. He does not pretend to be able to predict what would happen were we to give up nuclear weapons, but he is slightly encouraged by evidence from various countries that rational and/or obstinate people are not totally devoid of influence even without threatening to obliterate half mankind. He, surely, is the sensible moderate.

The 'knowledge workers'

Sir, — We can only applaud Professor Stonier's timely article (*THES* May 1) on knowledge as the wealth-creating force of the post-industrial society. Some of the axioms in his article will deservedly become classics. Professor Stonier presents an optimistic future for the UK, if only it can reverse its present policies and invest in an educated society.

As a professor of science and society, Tom Stonier is certain to be aware that there is a price to pay for the transition to the post-industrial resurgence. Our own researches suggest that one of the consequences of the attraction of knowledge work to SE England at the expense of the economically peripheral regions. If the present migration continues this could have disastrous effects by the end of this century.

Information technology can, and should, be used to redress the balance. In particular the development of computer conferencing allows inter-active and creative dialogue amongst professionals and frees them from existing constraints of time and place. In principle it is no longer necessary for know-

ledge workers to congregate in a few favoured areas in order to achieve productive collaboration. Yet, unlike the USA, this country has so far failed to develop and exploit this technique.

With the assistance of colleagues at Heriot-Watt and Dundee Universities, we are proposing to organise a computer conference on knowledge workers in the Post-Industrial Society during late June and July this year. We invite any reader interested in gaining experience of this new communications medium to contact us. It is intended that this activity should lead to a report giving practical suggestions for government policy in this field.

Yours faithfully,
JULIAN NEWMAN
City of London Polytechnic;
T.B. WARD
Ulster Polytechnic

Sir, — What a horrible tangle of cryptic examples and selected evidence Tom Stonier's article on the "knowledge industry" was. Correlations became causes, major trends were extrapolated from isolated facts and all adverse evidence and intervening variables were ignored.

No readers of the *THES* work in philosophy whole, and we had things to say about manpower planning but we were unimpressed by previous escapades into detailed planning — particularly over medicine and teaching, and certainly felt we should first get right those areas of manpower planning to which we were committed, before rushing ahead into pastures new. We were only too aware that providing engineering places at university did not necessarily produce a flow of folk to fill them.

What I think the select committee did not fully grasp in 1980, was the full effect of a really tight 1981 monetary squeeze on the universities. It has given the UGC a more effective tool in manpower planning than it has ever had before. The full implications of the first year of real decline will not be available for a month or so: the UGC is still haggling about global sums with the Government, and it is still not clear just how much small print and the assumptions as to faculty and even departmental "balance" underlying each university's grant, will be appended to the UGC's decision letter when it finally arrives.

Suffice it to say that this is a new and quite unique operation, in which the shape of higher education could be more affected for the future, by a couple of years' "financial" decisions by government and "academic" ones by the UGC, than it has been by student demand for "manpower planning" over the three decades since the operation through the normal secret channels of the UGC, will not

Yours faithfully,
JOHN GILLARD WATSON,
University of Oxford, Institute of Economics and Statistics

Sir, — In his letter advocating the non-involvement of academics in the nuclear arms debate, A.J. Hanna asserts that university teachers are far too sensible to be left-wing activists. It is precisely because academics are, by and large, sensible people, that I hope that many will be involved in the current debate on the limitation of nuclear arms. The proliferation of weapons of mass destruction, on both sides of the Iron Curtain, should be the concern of us all. Academics cannot and should not dissociate themselves from the debate. Mr Hanna's suggestion that academic literary critics and nuclear physicists are ill-informed in the matter of national defence may well be true. But I suspect that we are no less well-informed on these topics than those in Parliament who decide policy in this area.

Finally, Mr Hanna infers that concerted disarmament and left-wing activism go hand in hand. Nothing could be further from the truth. The disarmament movement in Britain, represented by CND, END, and numerous regional groups, is unrelated to any political party.

Yours faithfully,
NIGEL GARDNER
School of Geography, Mansfield Road Oxford.

factory or on farm, which surely indicates a decline of manual work in the occupational structure generally. Because the beginnings of mass schooling coincided with the Industrial Revolution and among Third World farmers we find those with education producing more, we were asked to believe that growth in education here and now would lead an economic upsurge. And the Japanese, with more patents than anyone else, are definitely worth emulating. Professor Stonier's impression of Japan's managements as technically more qualified than our own and its workers with "general skills training" as opposed to traditional craft training was explanation enough of the rise of Japanese shipbuilding and the corresponding decline in the British industry.

What resemblance mass schooling in the nineteenth century bore to education, what the ability to read instructions on a fertilizer sack says about the role of education in Britain, and whether British shipyard owners could have been "educated" to invest their profits in the 1950s and '60s are matters left to our imaginations.

And what of potential counter-evidence? What would a comparison of levels of education and training practices between, say, Britain and Belgium reveal? Belgium is a country whose industry has disintegrated even faster than ours, but do Belgian managers have "an occasional HND" and its workers a rigid craft training? And workers in the German motor industry who are half as productive as car workers in Japan — are they half as educated and twice as inflexible as their Japanese counterparts?

But if his article resembled something from the margins of Desmond Morris's jottings pad, its impact may be more sinister than the mere popularizing of his subject. Professor Stonier's purpose, in the climate of the present revolution in production methods and the displacement of labour, was to resurrect that 20-year corpse, the "post-industrial society". (And his particular mission was to suggest that education must mould itself to the needs of post-industrialism.) Like the post-industry theorists of the 1960s, he painted a breezy picture of society in which things happen as soon as opportunities arise, not for material motives. The simple formula was offered: countries which are most prosperous also lead the technological race, therefore all will come right once we join the

else, is shaping a new pattern of student demand. Idealism for a worthwhile future career seems more and more moderated by a harsh realism, which, I suppose, is characteristic of the Thatcher era. Law and accountancy are up, sociology and philosophy down. The brightest and best of the generation seem increasingly to be preferring private salary to public service.

To this extent, I suppose, Mrs Thatcher is congratulating herself. I have often suspected that her perceptive vision is primarily one of thriving service industries, with Britain adding up the sums and settling the disputes and fixing up insurance for the rest of humanity — all for a satisfactory percentage. Invisible exports are so much less messy than the ones that also by-pass trade union power rather more easily. Now I have never heard the Prime Minister say all this, and perhaps I am wrong about her private Nirvana. My point is that this is what seems to be happening anyway, and the trend will be exaggerated if our brightest graduates pursue services rather than production.

Just a word about the most popular career of all — law. I speak from experience, being closeted at the moment, a lone journalist, with a whole gaggle of them in the committee of the Contempt of Court Bill. So far from by-passing the trade unions, they increasingly strike me as easily the most effective "closed-shop" in the business. Alone among MPs, they have acquired the privilege of never sitting on commit-

In defence of London

Sir, — You reported (*THES* April 24) that the U.G.C. was intent on distinguishing between three categories of funding for universities and that London would be in the lowest. I have waited to see an angry riposte from the vice chancellor and stout defences from our principals, provosts, masters, rectors and directors. But I have waited in vain.

To borrow from contemporary usage, the university of London is a federation of centres of excellence — both large and small. Of course, the centre of excellence is a misleading and erroneous concept; our ministerial functionaries often confuse it with centres of experience — e.g. Oxford, Cambridge and Durham — and centres of excellence which I shall not attempt to name but which obviously have been recently subject to abnormal growth, and centres of exuberance that

Admissions to Balliol

Sir, — In your last issue you reported that Balliol College has instituted a new scheme to attract a greater number of candidates from State Schools. It will be offering up to 20 per cent of its places without examination to candidates from schools which cannot provide significant tuition for the Oxbridge entrance papers. The college is grateful to you for the sympathetic account you gave of this scheme in your leader.

There is, however, one statement in Paul Fletcher's report which must not be allowed to stand uncorrected. It is

not true that "Balliol is embarrassed by the number of applications it receives from independent schools". We are delighted to receive applications from good candidates from independent schools; we receive many and would welcome more. The purpose of the new scheme is simply to further, in altered conditions, the college's century-old aim of attracting the very best candidates from every kind of school in the country.

Yours faithfully,
ANTHONY KENNY,
Master, Balliol College, Oxford.

"information society". "Know-how", we were told, is the "most important single input into modern productive systems". When wasn't it important? Ah, but now industry uses information from the "forefront of human knowledge". His article might lead us to doubt that Professor Stonier knows where this is. But given that change, might it not reflect the tight control that big firms have over original research. "Knowledge" isn't the expanding but neutral corpus the professor assumed it to be.

Beneath the enthusiasm of the article lay a fatalistic core: we should not bother defending the work we have, but acquire (and teach) the flexible skills that employers now want. Business will do what it always has done with such academic systems — take what it wants and leave the rest.

Yours faithfully,
ROBIN FINCHAM,
Napier College, Edinburgh.

Letters for publication should arrive by Tuesday morning. They should be as short as possible and written on one side of the paper. The editor reserves the right to cut or amend them if necessary.

tees in the mornings, as this would interfere with their moonlighting (or rather daylighting) activities in the courts. They effortlessly acquire a monopoly holding over Bills such as Contempt, to ensure that a legal interpretation of freedom of expression takes precedence over a journalistic — or even academic — one. At least they are a distinctly mixed-ability class at the moment. If they are set fair now to monopolize talent as well as money, I shudder for the future of Britain. An over-production of lawyers is the bane of Third World countries and we seem to be inheriting the same disease: the only comfort I can find is the fact that their restrictive practices are so effective (immensely more so than those, for example, of the print unions) that they also by-pass trade union power rather more easily. Now I have never heard the Prime Minister say all this, and perhaps I am wrong about her private Nirvana. My point is that this is what seems to be happening anyway, and the trend will be exaggerated if our brightest graduates pursue services rather than production.

Just a word about the most popular career of all — law. I speak from experience, being closeted at the moment, a lone journalist, with a whole gaggle of them in the committee of the Contempt of Court Bill. So far from by-passing the trade unions, they increasingly strike me as easily the most effective "closed-shop" in the business. Alone among MPs, they have acquired the privilege of never sitting on commit-

depend for their reputation on highly paid public relations consultants.

The fact is that excellence may be found lurking in all our universities; it is a rare quality that concerns the intellects of individuals. The nation's capital, Sir, can be proud of its university; it has its proper share of excellence in research, scholarship and teaching, in its staff and in its students. This excellence must be fostered with money. It is true its graduates have a metropolitan sophistication but this must not be held against them; their academic calibre is second to none. It is important that the status of the University of London should not be diminished to that of a collection of liberal arts colleges.

Yours faithfully,
PETER RICE-EVANS,
Department of Physics, Bedford College, London University.

Burrowing through the hump



Christopher Price

The select committee quoted with approval last year the US Carnegie Commission's conclusion that student demand, if backed up with adequate information on the job market, was at least as efficient as other methods of planning the structure of higher education and certainly very much cheaper.

We certainly did not swallow this